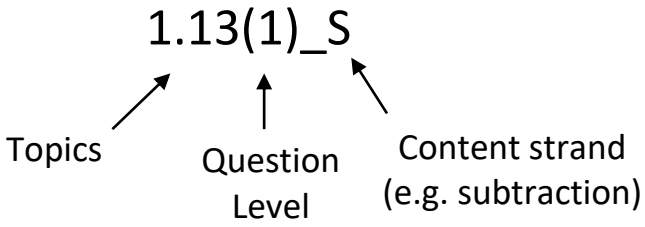
Contents

Abbreviations used:



Content strand abbreviations:

1.4	'C' → comparing numbers	'O' → ordinal numbers
1.7; 1.13	'S' → subtraction	'A' → addition
1.9	'G' → grouping	'SH' → sharing
1.14; 1.15	'M' → multiplication	'D' → division
2	'GP' → geometric pattern	'NP → number pattern

1.2 Count with whole numbers: count forwards and backwards

1.2(1) Count and complete.

23 ; 24 ; 25 ; ___ ; ___ ; ___ ; ___

10 ; 20 ; 30 ; ___ ; ___ ; ___ ; ___ (_)

Memo 23 ; 24 ; 25 ; **26 ; 27 ; 28 ; 29**
10 ; 20 ; 30 ; **40 ; 50 ; 60 ; 70**

1.2(2) Count and complete.

75	74	___	___	71	70	___	___	67	___

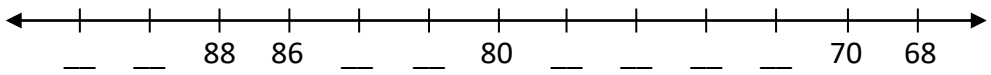
60 ; 62 ; ___ ; 66 ; 68 ; ___ ; ___ ; ___ ; ___ ; 78 ; ___ (_)

Memo

75	74	**73**	**72**	71	70	**69**	**68**	67	**66**

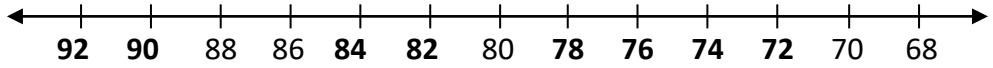
60 ; 62 ; **64** ; 66 ; 68 ; **70 ; 72 ; 74 ; 76 ;** 78 ; **80**

1.2(3) Count and complete.



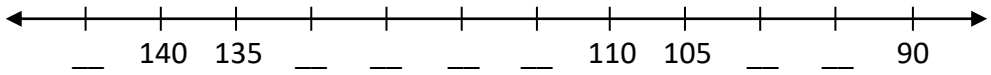
___ ; 8 ; 12 ; ___ ; ___ ; ___ ; ___ ; 32 ; 36 (_)

Memo



4 ; 8 ; 12 ; **16 ; 20 ; 24** ; **28** ; 32 ; 36

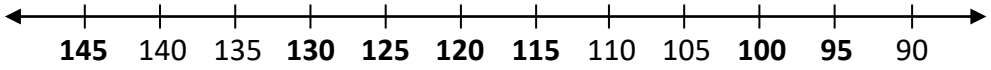
1.2(4) Count and complete.



30	33	___	___	42	45	___	___	54	___

(_)

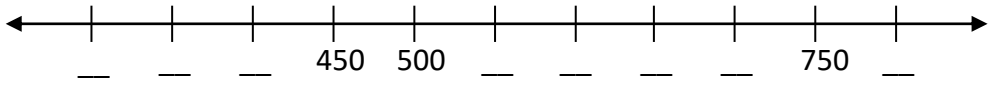
Memo



30	33	**36**	**39**	42	45	**48**	**51**	54	**57**

1.2(5) Count and complete.

___ ; ___ ; 700 ; 600 ; ___ ; ___ ; ___ ; 200

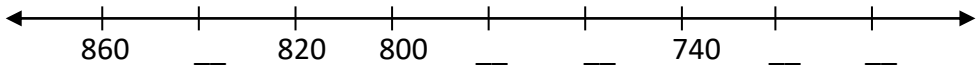


(_)

Memo

900 ; 800 ; 700 ; 600 ; **500 ; 400 ; 300 ;** 200

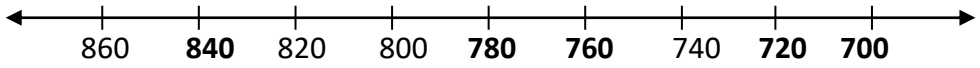
1.2(6) Count and complete.



___	100	125	150	___	___	___	___	___	300

(_)

Memo



75	100	125	150	**175**	**200**	**225**	**250**	**275**	300

1.3 Represent whole numbers: number symbols and number names

1.3(1) a.

Copy the numbers.

1	2	3	4	5	6	7	8	9	10

(_)

b.

Complete. Write the number next to each number name.

one	1	Δ
two	___	Δ Δ
three	___	Δ Δ Δ
four	___	Δ Δ Δ Δ
five	___	Δ Δ Δ Δ Δ

(_)

Memo b.

one	1	Δ
two	**2**	Δ Δ
three	**3**	Δ Δ Δ
four	**4**	Δ Δ Δ Δ
five	**5**	Δ Δ Δ Δ Δ

1.3(2) a. Write in the missing numbers.

11	12	___	___	15	16	___	___	19	___

(_)

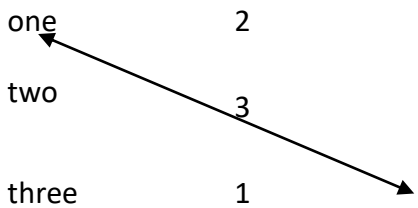
b.

31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70

- Colour the number in red that is just before 37.
- Colour the number in red that is just before 41.
- Colour the number in blue that is just after 49.
- Colour the number in blue that is just after 45.
- Underline the number that is 1 more than 53.
- Underline the number that is 1 less than 70.

(_)

c. Match the number names to the numbers.



one	2
two	3
three	1
four	5
five	4
six	7
seven	10
eight	6
nine	8
ten	9

(_)

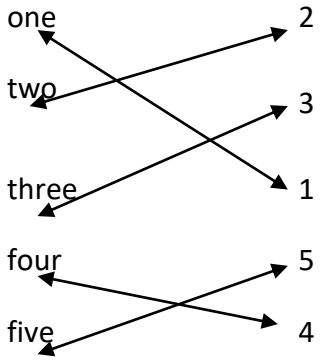
Memo a.

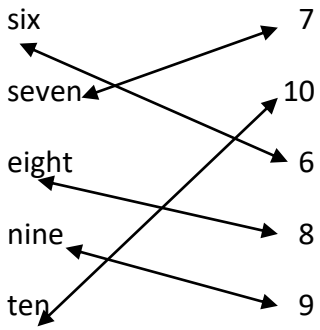
11	12	**13**	**14**	15	16	**17**	**18**	19	**20**

b.

31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	**54**	55	56	57	58	59	60
61	62	63	64	65	66	67	68	**69**	70

c.





1.3(3) a. Write in the missing numbers.

61	62	63	64	65	66	67	68		
		73	74	75	76	77	78	79	80
81	82	83	84					89	90
91		93	94	95	96	97			

(_)

b. Use the number chart above and answer the questions.

- Colour the numbers in red that are between 65 and 69.
- Colour the numbers in red that are between 91 and 96.
- Colour all the even numbers in blue that are between 75 and 85.

(_)

c. Write the correct number next to each number name.

twelve	___	63	36
seventeen	___	61	16
twenty-five	___	12	21
thirty-six	___	7	17
sixty-one	___	25	52

(_)

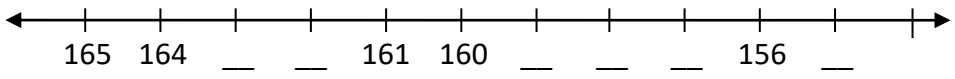
Memo a and b:

61	62	63	64	65	66	67	68	**69**	**70**
71	**72**	73	74	75	76	77	78	79	80
81	82	83	84	**85**	**86**	**87**	**88**	89	90
91	**92**	93	94	95	96	97	**98**	**99**	**100**

c.

twelve	___	**12**
seventeen	___	**17**
twenty-five	___	**25**
thirty-six	___	**36**
sixty-one	___	**61**

1.3(4) a. Write in the missing numbers.



- Colour the number in red that is 2 more than 157.
- Colour the number in blue that is 2 less than 163.
- Underline all the odd numbers between 164 and 158.

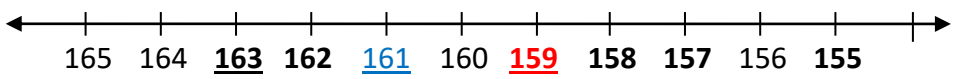
(_)

b. Write in the correct number names.

54	_____	thirteen	thirty-one
69	_____	seventy-two	twenty-seven
13	_____	forty-five	fifty-four
85	_____	ninety-six	sixty-nine
100	_____	eighty-five	fifty-eight
27	_____	one hundred	ten

(_)

Memo a.



b.

54	**fifty-four**
69	**sixty-nine**
13	**thirteen**
85	**eighty-five**
100	**one hundred**
27	**twenty-seven**

1.3(5) a. Write in the missing numbers.

			684	685	686	687	688		
691	692	693	694	695	696	697	698		

- Colour the number in red that is 3 more than 696.
- Colour the number in blue that is 3 less than 696.
- Underline the number that is just after 699.
- Underline the number that is just after 686.

(_)

b. Match the number names to the numbers.

two hundred and thirty-eight	307
three hundred and seven	278
two hundred and seventy-eight	238
four hundred and fifty-three	510
three hundred and fifty-six	453
five hundred and ten	356

(_)

Memo a.

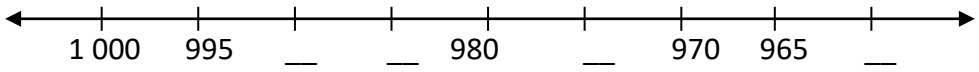
681	**682**	**683**	684	685	686	687	688	**689**	**690**
691	692	693	694	695	696	697	698	**699**	**700**

b.

two hundred and thirty-eight	307
three hundred and seven	278
two hundred and seventy-eight	238

four hundred and fifty-three	510
three hundred and fifty-six	453
five hundred and ten	356

1.3(6) a. Write in the missing numbers.



- Write down the even numbers between 1 000 and 995.

  _____

- Write down the odd numbers between 970 and 965.

  _____

- Find the number that is halfway between 1 000 and 980.

  _____

(_)

b. Write the matching number names or numbers.

401 _____

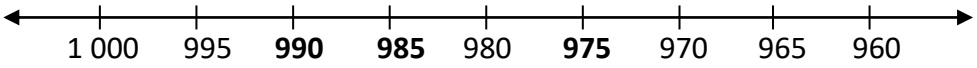
_____ five hundred and fifty-six

780 _____

_____ nine hundred and twenty-seven

(_)

Memo a.



- Write down the even numbers between 1 000 and 995. **996; 998**
- Write down the odd numbers between 970 and 965. **967; 969**
- Find the number that is halfway between 1 000 and 980. **990**

b.

401 **four hundred and one**

556 five hundred and fifty-six

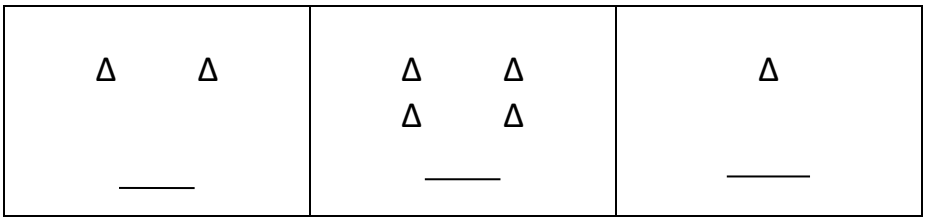
780 **seven hundred and eighty**

927 nine hundred and twenty-seven

1.4 Describe, compare and order numbers

1.4(1)_C

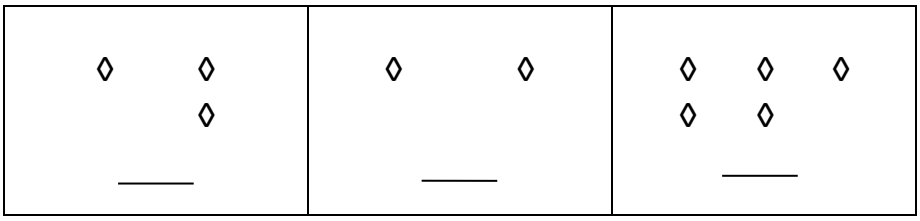
a. Colour in the block that has the most shapes. Count and write in the numbers.



Order the numbers from smallest to greatest.

_____ (_)

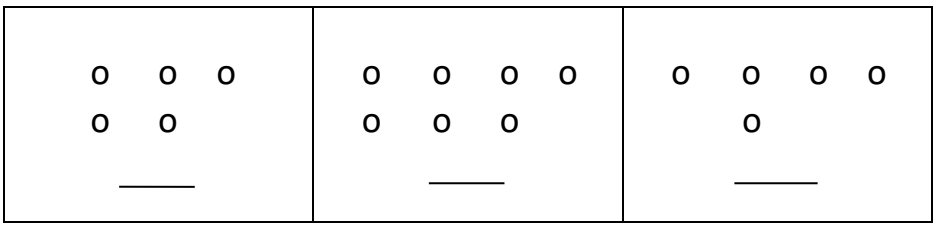
b. Colour in the block that has the least shapes. Count and write in the numbers.



Order the numbers from smallest to greatest.

_____ (_)

c. Colour in the blocks that have the same number of shapes. Count and write in the numbers.



5 is 2 less than_____

7 is 2 more than _____

(_)

Memo a.

Δ Δ **2**	Δ Δ Δ Δ **4**	Δ **1**

Order the numbers from smallest to greatest.
1 ; 2 ; 4

b.

◊ ◊ ◊ **3**	◊ ◊ **2**	◊ ◊ ◊ ◊ ◊ **5**

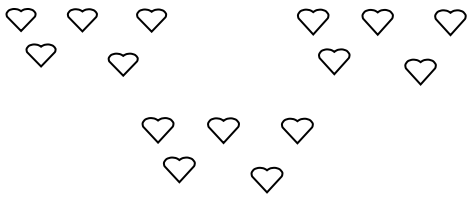
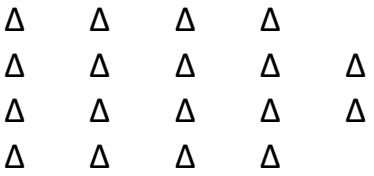
Order the numbers from smallest to greatest.
2 ; 3 ; 5

c.

o o o o o **5**	o o o o o o o **7**	o o o o o **5**

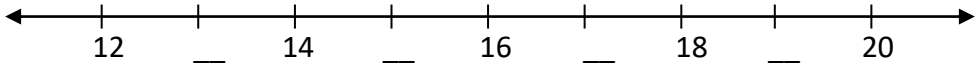
5 is 2 less than **7**
7 is 2 more than **5**

1.4(2)_C a.

Count and write in the number.	Make the number 2 more.
 ____	____
 ____	____
 ____	____

(_)

b. Fill in the missing numbers on the number line.



- Underline the number that comes before 16.
- Underline the number that comes after 12.
- Underline the number that is between 18 and 20.

(_)

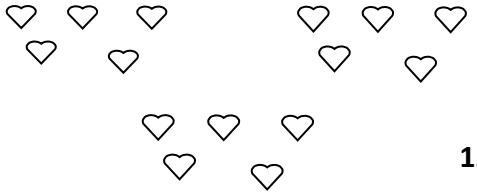
c. Write the numbers from smallest to greatest.

9 11 3 15

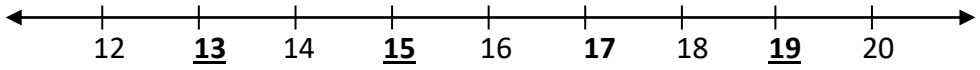
___ ___ ___ ___

(_)

Memo a.

Count and write in the number.	Make the number 2 more.
 **12**	**14**
 **15**	**17**
 **18**	**20**

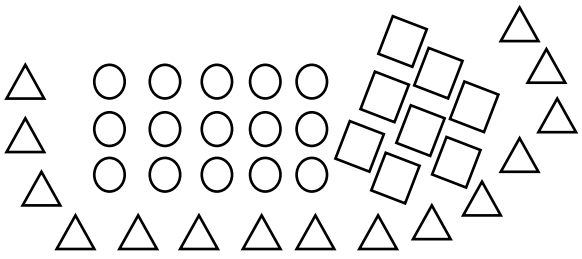
b.



c.

3 **9** **11** **15**

1.4(3)_C a. How many shapes? Write in the numbers and answer the questions.



___ ___ ___

(_)

b. Use the picture above and answer the questions.

- Which shapes have the greatest number? Write the number. ___
- Which shape has the smallest number? Write the number. ___
- Draw the shape that has a number less than 9. ___
- Draw the shapes that have the same number. ___ (_)

c. Complete. Make the middle number 2 less and 2 more.

2 less	number	2 more
11	13	15
	39	
	44	
	58	

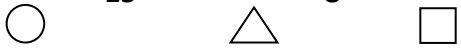
(_)

d. Sort from greatest to smallest.

15 53 35 13

___ ___ ___ ___ (_)

Memo a. **15** **15** **8**



b.

- Which shapes have the greatest number? Write the number. **15**
- Which shape has the smallest number? Write the number. **8**
- Draw the shape that has a number less than 9. □
- Draw the shapes that have the same number. △ ○

c.

2 less	number	2 more
11	13	15
37	39	**41**
42	44	**46**
56	58	**60**

d. **53** **35** **15** **13**

1.4(4)_C a. Fill in the missing numbers.

61	62	63	64	65	66				
71	72	73	74	75	76	77	78	79	80
				85	86	87	88	89	90
91	92	93	94	95	96				

- Colour the numbers in red that lie between 71 and 75.
- Underline the number that is 2 less than 80.
- Underline the number that is 2 more than 89.
- Underline the number that comes just before 96.
- Underline the number that comes just after 87.
- Which number is greater, 69 or 81? Underline the number. (_)

b. Write the numbers from smallest to greatest.

27 69 96 72

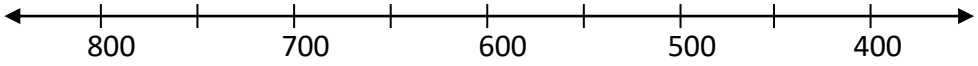
___ ___ ___ ___ (_)

Memo a.

61	62	63	64	65	66	**67**	**68**	**69**	**70**
71	72	73	74	75	76	77	78	79	80
81	**82**	**83**	**84**	85	86	87	88	89	90
91	92	93	94	95	96	**97**	**98**	**99**	**100**

b. **27** **69** **72** **96**

1.4(5)_C a. Complete.



- Fill in the number that is 50 fewer than 800.
- Fill in the number that is 50 greater than 400.
- Fill in the number that is 100 fewer than 750.
- Fill in the number that is 100 greater than 450.

(_)

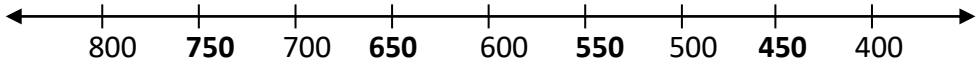
b. Sort from greatest to smallest.

824	284	243	842	423

___ ___ ___ ___ ___ (_)

Memo

a.



b.

842	**824**	**423**	**284**	**243**

1.4(6)_C

This is <u>your number</u>:	500
• Make your number 2 more.	
• Make your number 12 more.	
• Make your number 10 less.	
• Make your number 9 less.	
• How much must you add to 500 to make it equal to 700?	
• How much must you add to 500 to make it equal to 1 000?	
• Which number is greater, 999 or 1 000? By how many? ____	

(_)

Memo

This is <u>your number</u>:	500
• Make your number 2 more.	**502**
• Make your number 12 more.	**512**
• Make your number 10 less.	**490**
• Make your number 9 less.	**491**
• How much must you add to 500 to make it equal to 700?	**200**
• How much must you add to 500 to make it equal to 1 000?	**500**
• Which number is greater, 999 or 1 000? By how many? **1**	**1000**

1.4 Describe, compare and order numbers: using ordinal numbers		
1.4(1)_O	*Teacher: Position learners in a line from first to last or tenth.* *Ask questions such as those indicated below.* • *Which learner is first in line?* • *Which learner is last in line?* • *Which learner is second in line?* • *Which learner is third in line?* • *What is Rabia's position?* *(Rabia represents the name of a selected learner.)*	(_)
Memo	**Accept responses according to the teacher's questions.**	
1.4(2)_O	*Teacher: Position objects in a line from first to tenth or first to last. Let the learners select cards (e.g. First Second Third) to place below the objects to indicate the correct position. Ask questions to consolidate position such as,* • *Which object is sixth in line?* • *What is the position of … (selected shapes)?*	(_)
Memo	**Accept responses according to the teacher's questions.**	
1.4(3)_O	*Teacher: Divide the learners in groups. Let the learners select cards that have the names (or pictures) of their favourite meals (e.g. pizza, pasta, gatsby, breyani, sausage, meatballs, curry, steak, etc). The learners have to put their selection in order of 'the most popular to the least popular' in their groups.* *Let each group present their selection from first to last.*	(_)
Memo	**Accept responses according to the teacher's selection of items.**	

1.4(4)_O a. Match the abbreviated forms to the ordinal number names.

11^{th}	twelfth
12^{th}	fourteenth
13^{th}	eleventh
14^{th}	fifteenth
15^{th}	thirteenth
16^{th}	eighteenth
17^{th}	sixteenth
18^{th}	twentieth
19^{th}	seventeenth
20^{th}	nineteenth

(_)

b.

1^{st}					6^{th}						12^{th}

Teacher: Divide the learners in groups. Give each group a large chart with 12 blocks as indicated above. Read the instructions to the groups.

- *Write the abbreviated forms in the blocks.*
- *Draw a large red dot in the first block*
- *Draw a large blue dot in the third block*
- *Draw a large green dot in the sixth block*
- *Draw a large yellow dot in the seventh block*
- *Draw a large purple dot in the tenth block*
- *Draw a large black dot in the last block*

Let each group display their charts.
Ask questions to consolidate their use of ordinal numbers to indicate position (e.g. Which positions do not have a color dot?)

(_)

Memo a.

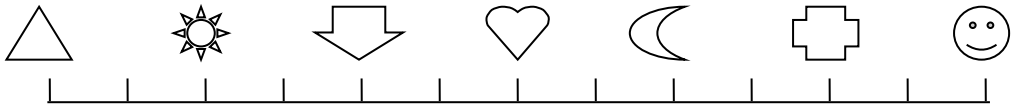
11th	twelfth
12th	fourteenth
13th	eleventh
14th	fifteenth
15th	thirteenth
16th	eighteenth
17th	sixteenth
18th	twentieth
19th	seventeenth
20th	nineteenth

b.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
●		●			●	●			●		●

No colours at: 2nd; 4th; 5th; 8th; 9th; 11th

1.4(5)_O Fill in the missing numbers.



(_)

a. What are the positions of the moon and the sun?

moon ____ sun ____ (_)

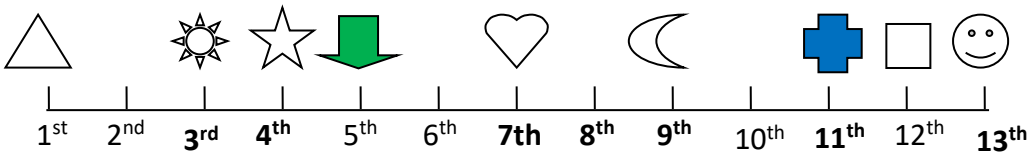
b. Colour in the shapes that are in 5th and 11th positions. (_)

c. Which shape is seventh in the line? ____ (_)

d. Draw a star shape ☆ in the 4th position. (_)

e. Draw a square shape □ in the 12th position. (_)

Memo



a. moon **9th** sun **3rd**
b. Colour in the shapes that are in 5th and 11th positions.
c. Which shape is seventh in the line? **Heart**

1.4(6)_O

a. Complete this row of numbers.

5 ; 10 ; 15 ; 20 ; ___ ; ___ ; ___ ; ___ ; ___ ; ___ (_)

b. What will the fifth number in the row be? ___ (_)

c. What will the tenth number in the row be? ___ (_)

d. What will the 12th number in the row be? ___ (_)

e. What will the 20th number in the row be? ___ (_)

f. What will be the <u>positions</u> of:

35? _____ 80? _____ (_)

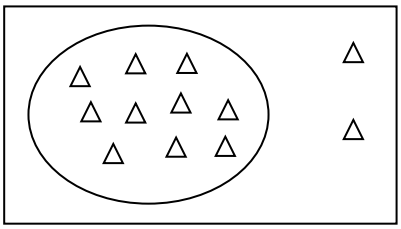
Memo

a. 5 ; 10 ; 15 ; 20 ; **25 ; 30 ; 35 ; 40 ; 45 ; 50**
b. What will the fifth number in the row be? **25**
c. What will the tenth number in the row be? **50**
d. What will the 12th number in the row be? **60**
e. What will the 20th number in the row be? **100**
f. What will be the <u>positions</u> of:
35? **7th** 80? **16th**

1.5 Place value

1.5(1) a. Complete.

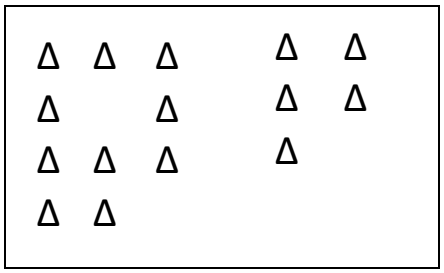
12



12 loose ones = 12

___ group of ten and ____ loose ones = 12 (_)

b. Complete. Circle the group of ten.



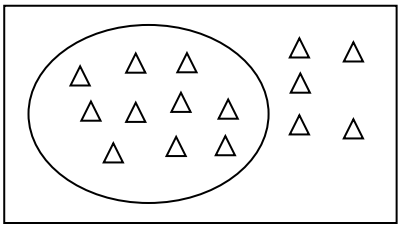
15 loose ones = 15

___ group of ten and ____ loose ones = 15

__ group of ten and ____ loose ones = 19 (_)

Memo a. **1** group of ten and **2** loose ones = 12

b.



1 group of ten and **5** loose ones = 15

1 group of ten and **9** loose ones = 19

1.5(2) Complete.

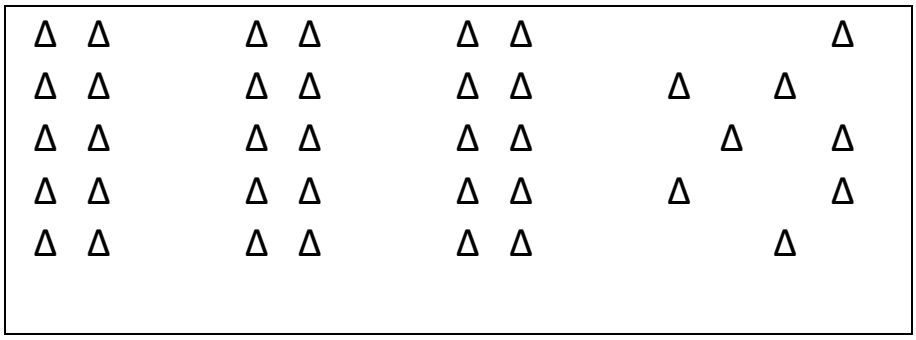
- 1 group of ten and 6 loose ones = _____
- 1 group of ten and 4 loose ones = _____
- 1 group of ten and 9 loose ones = _____
- 12 = 1 ten and ___ ones
- 17 = ___ ten and ___ ones
- 13 = ___ ten and ___ ones

(_)

Memo

- 1 group of ten and 6 loose ones = **16**
- 1 group of ten and 4 loose ones = **14**
- 1 group of ten and 9 loose ones = **19**
- 12 = 1 ten and **2** ones
- 17 = **1** ten and **7** ones
- 13 = **1** ten and **3** ones

1.5(3) a. Complete. Circle the groups of tens.



38 loose ones = ___

1 group of ten and ____ loose ones = 38

2 groups of tens and ____ loose ones = 38

3 groups of tens and ____ loose ones = 38

4 tens and ___ ones = 48

(_)

b. Complete.

37 = ___ tens and ___ ones

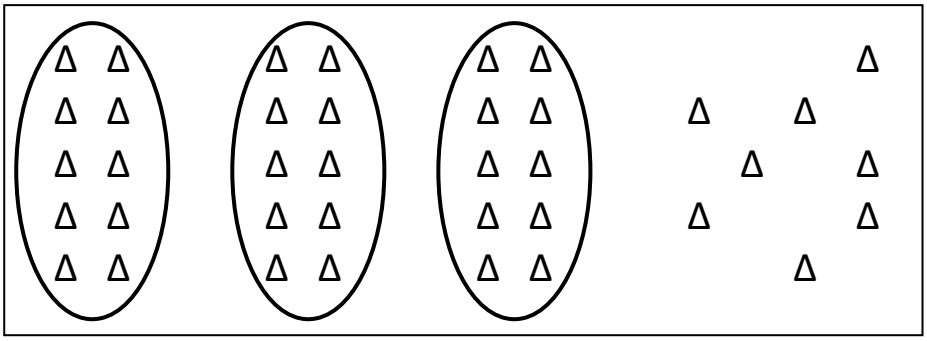
43 = ___ tens and ___ ones

53 = 50 and ___

48 = ___ and 8

(_)

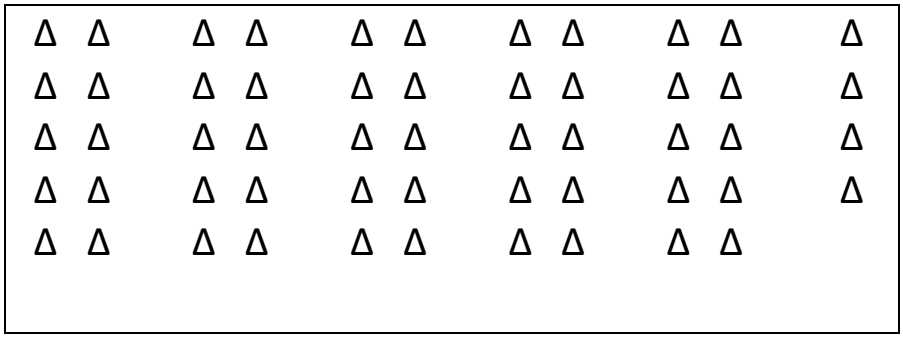
Memo a.



38 loose ones = **38**
1 group of ten and **28** loose ones = 38
2 groups of tens and **18** loose ones = 38
3 groups of tens and **8** loose ones = 38
4 tens and **8** ones = 48

b.
37 = **3** tens and **7** ones
43 = **4** tens and **3** ones
53 = 50 and **3**
48 = **40** and 8

1.5(4) a. Complete. Circle the groups of tens



54 loose ones = ___

2 groups of tens and ___ loose ones = 54

4 groups of tens and ___ loose ones = 54

___ tens and ___ ones = 54
8 tens = ___
70 and 2 = ___
___ and ___ = 86

(_)

b. Write the missing numbers in each box.

23 = 20 + ☐

47 = ☐ + 7

50 = 50 + ☐

89 = ☐ + 9

(_)

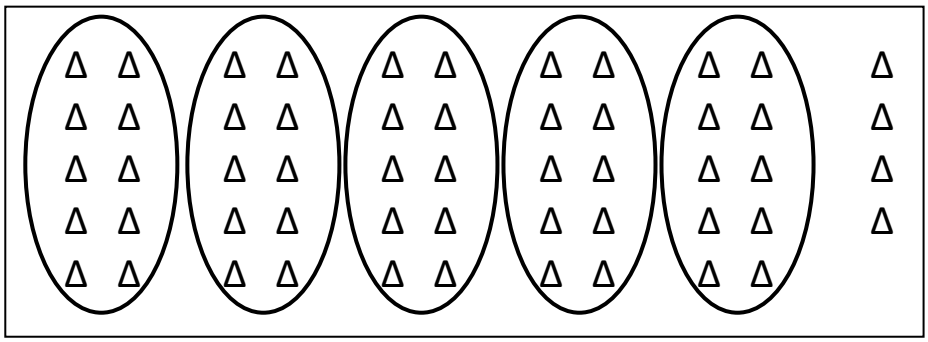
c. Complete.

What does the digit 6 represent in 63? ____

What does the digit 4 represent in 74? ____

(_)

Memo a.



54 loose ones = **54**
2 groups of tens and **34** loose ones = 54
4 groups of tens and **14** loose ones = 54
5 tens and **4** ones = 54
8 tens = **80**
70 and 2 = **72**
80 and **6** = 86

b.

23	=	20	+	**3**
47	=	**40**	+	7
50	=	50	+	**0**
89	=	**80**	+	9

c.
What does the digit 6 represent in 63? **60**
What does the digit 4 represent in 74? **4**

1.5(5) a. Break up the numbers into hundreds, tens and ones.

343 = ___ hundreds + ___ tens + ___ ones

502 = ___ hundreds + ___ tens + ___ ones

400 + ___ + ___ = 476

___ + ____ + ____ = 799 (_)

b. Write the numbers.

One hundred and eight tens and four ones ____

Six hundreds and two tens and three ones ____

Four hundreds and seven ones ____ (_)

c. Complete.

What does the digit 5 represent in 159? ____

What does the digit 4 represent in 476? ____ (_)

Memo

a.

343 = **3** hundreds + **4** tens + **3** ones

502 = **5** hundreds + **0** tens + **2** ones

400 + **70** + **6** = 476

700 + **90** + **9** = 799

b.

One hundred and eight tens and four ones **184**

Six hundreds and two tens and three ones **623**

Four hundreds and seven ones **407**

c.

What does the digit 5 represent in 159? **50**

What does the digit 4 represent in 476? **400**

1.5(6)

a. Write the numbers.

6 tens and 13 ones = ____

300 ones = ____

5 hundreds and 27 ones = ____

28 tens and 9 ones = ____

7 hundreds and 4 ones = ____ (_)

b. Make the sides equal.

100 + ☐ + 3 = 3 + 170

☐ + 50 + ☐ = 300 + 51

☐ + ☐ + ☐ = 600 + 66 (_)

c. What does the digit 6 represent in each of the numbers?

446 _____

608 _____

363 _____ (_)

Memo a.

6 tens and 13 ones = **73**
300 ones = **300**
5 hundreds and 27 ones = **527**
28 tens and 9 ones = **289**
7 hundreds and 4 ones = **704**

b.

100 + **70** + 3 = 3 + 170

300 + 50 + **1** = 300 + 51

600 + **60** + **6** = 600 + 66

c.

446 **6**
608 **600**
363 **60**

1.7 Solve problems in context: subtraction		
1.7(1)_S	Piet has 9 toy cars. He gives away 4 toy cars. How many toy cars does he have now?	(_)
Memo	**5 cars**	
1.7(2)_S	Mr Tshala has 16 coffee mugs. 7 mugs break. How many mugs does he have now?	(_)
Memo	**9 mugs**	
1.7(3)_S	a. Mrs Stevens bought 54 muffins. 16 are chocolate muffins. The rest are vanilla muffins. How many vanilla muffins are there? b. Sadia saved R67 and Alex saved R82. How much more did Alex save than Sadia?	(_) (_)
Memo	a. **38 muffins** b. **R15**	
1.7(4)_S	Mrs Bulo has 62 pockets of oranges. She sells some. She has 36 pockets left. How many pockets did she sell?	(_)
Memo	**26 pockets**	
1.7(5)_S	Mr. Kallis had many tiles. He used 440 tiles to cover a wall. He has 66 tiles left. How many tiles did he have before he covered the wall?	(_)
Memo	**506 tiles**	
1.7(6)_S	a. Mrs. Bardien has 220 pies. She sells the same number of pies to Jonah and Xola. She has 28 pies left. How many pies did Jonah get?	(_)

	b. Alex has R244. Akhona has R170. How much money must Alex give to Akhona so that they have the same amount? (_)
Memo	a. **96 pies** b. **R37**

1.7 Solve problems in context: addition		
1.7(1)_A	Mandy has 6 pencils. Sakhele has 2 pencils. How many pencils do they have altogether?	(_)
Memo	**8 pencils**	
1.7(2)_A	Ben has 9 toffees. Jan gave him 8 more. How many toffees does Ben have now?	(_)
Memo	**17 toffees**	
1.7(3)_A	Sakhele has read 35 pages of his book. He still has 29 pages to read. How many pages are there in the book?	(_)
Memo	**64 pages**	
1.7(4)_A	There are 3 boxes of pears. Altogether there are 95 pears. There are 24 pears in the first box. There are 38 pears in the second box. How many pears are there in the third box?	(_)
Memo	**33 pears**	
1.7(5)_A	There are 157 boys and 138 girls in Grade 3. In Grade 4 there are 176 girls and 178 boys. How many children are there altogether in Grade 3 and Grade 4?	(_)
Memo	**649 children**	
1.7(6)_A	Mrs Manga wants to buy a cupboard that costs R650 and a table that costs R220. She has saved R500. How much money does she still need?	(_)
Memo	**R370**	

1.8 Solve problems in context: repeated addition leading to multiplication	
1.8(1)	Uyanda drinks 3 glasses of milk every day. How many glasses of milk does she drink in 3 days? (_)
Memo	**9 glasses of milk**
1.8(2)	There are 4 cars. How many wheels are there altogether? (_)
Memo	**16 wheels**
1.8(3)	Mr Kallis plants 5 rows of carrot plants. He plants 6 carrot plants in each row. How many carrot plants does he have altogether? (_)
Memo	**30 carrot plants**
1.8(4)	Mrs Twala puts coffee mugs on a tray. She puts 3 mugs in a row. She has 4 rows. a. How many mugs does she have altogether? (_) b. How many mugs will she have on 2 trays? (_)
Memo	a. **12 mugs** b. **24 mugs**
1.8(4)	Mr Bhana has 48 lettuce plants. There are different ways in which he can plant them in rows. Each row must have the same number of plants. (_) a. If he puts 6 plants in each row, how many rows will he have? (_) b. If he makes 4 rows, how many plants will he have in each row? (_)
Memo	a. **8 rows** b. **12 plants in each row**
1.8(5)	Pravesh's uncle gave him a bank card with R20 on it. He saves R5 on it every month. How much money will he have on his bank card after 5 months? (_)
Memo	**R45**
1.8(6)	Simangy paints 15 toys every hour. Simangy's friend paints 5 toys every hour.

	a. How many toys did Simangy paint after 4 hours?	(_)
	b. How many toys did the friends paint altogether after 4 hours?	(_)
Memo	a. **60 toys** b. **80 toys altogether**	

1.9 Solve problems in context: sharing leading to division

1.9(1)_SH	Ethan and Piet must share 6 pencils equally. Draw what each one gets.	(_)
Memo	**Drawing with 3 pencils each**	
1.9(2)_SH	Kim and Likhona share 19 kokis equally between them. How many will each one get?	(_)
Memo	**9 kokis each, remainder 1**	
1.9(3)_SH	a. Three boys share 36 marbles. How many will each boy get? b. Four girls share 36 marbles. How many will each girl get? c. Five boys share 36 marbles. How many will each boy get?	(_) (_) (_)
Memo	a. **12 marbles each** b. **9 marbles each** c. **7 marbles each, remainder 1**	
1.9(4)_SH	Together 2 girls win 3 boxes of pens. Each box has 15 pens in it. They have to share the pens equally. How can they do it?	(_)
Memo	**A drawing showing 22 pens each, remainder 1**	
1.9(5)_SH	a. 3 children help Mrs Manga in the garden. Mrs Manga gives them 78 lettuce seedlings to share equally. How many seedlings will each child get? b. 4 children help Mr Davids in his garden. Mr Davids gives them 35 seedlings in one container and 52 in another container. The children must share the seedlings equally. How many seedlings will each child get?	(_) (_)
Memo	a. **26 lettuce seedlings each** b. **21 seedlings each, remainder 3**	
1.9(6)_SH	4 children earn R97 for working in a shop. They buy sweets for R25. They have to share the change equally. How can they do it? How much money will each child get?	(_)

Memo R18 each

1.9 Solve problems in context: grouping leading to division

1.9(1)_G	Sara has 9 pears. She puts 3 pears in a bag. How many bags can she fill?	(_)
Memo	**3 bags**	
1.9(2)_G	Likhona has 17 muffins. He puts 4 muffins in a packet. How many packets can he fill?	(_)
Memo	**4 packets, rem 1**	
1.9(3)_G	At a school outing 5 children travelled together in a car. There were 40 children. How many different cars did they use?	(_)
Memo	**8 cars**	
1.9(4)_G	There are 7 tennis players in a team. 45 children want to play tennis. How many teams can they make?	(_)
Memo	**6 teams, 3 players remaining**	
1.9(5)_G	a. Dilshan has a red box with 42 apples and a blue box with 48 apples. He puts 8 apples in a bag. How many bags can he fill from his two boxes? b. Mandy had many pears in a box. She threw away 9 rotten pears. She put 6 pears in a bag and filled 7 bags. How many pears did she have to start with?	(_) (_)
Memo	a. **11 bags, rem 2** b. **51 pears**	
1.9(6)_G	A table tennis team has 4 players. A netball team has 7 players. Alex counts 29 players. a. How many table tennis teams and how many netball teams are there? b. Is there only one possible answer?	(_) (_)

Memo a. **2 table tennis teams + 3 netball teams**
b. **yes**

1.10 Solve problems in context: sharing leading to fractions

1.10(3)	a.	Alex and Sakhele want to share 3 chocolate Tex bars equally. Show them how to do it.	(_)
	b.	Peter, Sadia and Pravesh want to share 4 chocolate Tex bars equally. Show them how to do it.	(_)
	c.	Moosa, Sara, Kim and Xola want to share 5 chocolate Tex bars equally. Show them how to do it.	(_)
Memo	a.	**A drawing showing 1 and 1 half chocolate bars each**	
	b.	**A drawing showing 1 and 1 third chocolate bars each**	
	c.	**A drawing showing 1 and 1 fourth/quarter chocolate bars each**	
1.10(4)	a.	Five friends share 6 hotdogs equally. How much will each one get?	(_)
	b.	Four friends share 9 hotdogs equally. How much will each one get?	(_)
	c.	Two friends share 12 marbles equally. How many marbles will each friend get? What fraction will each friend have?	(_)
Memo	a.	**1 and 1 fifth hotdog each**	
	b.	**2 and 1 fourth/quarter hotdogs each**	
	c.	**6 marbles each, 1 half**	
1.10(5)	a.	Three children share 10 viennas equally. How much viennas will each child get?	(_)
	b.	Five children share 11 viennas equally. How much viennas will each child get?	(_)
	c.	Mr Martin bakes 12 muffins. He shares all the muffins equally among his 4 friends. How many muffins did each friend get? What fraction did each friend have?	(_)
Memo	a.	**3 and 1 third viennas each**	
	b.	**2 and 1 fifth viennas each**	
	c.	**3 muffins each, 1 fourth/quarter**	

1.10(6)	a. Three children share 5 Bar One chocolates equally. Show how they must do it. How much chocolate will each child get?	(_)
	b. Four children share 6 Bar One chocolates equally. Show how they must do it. How much chocolate will each child get?	(_)
	c. Mrs Manga has 12 apples. She shares them equally among her 6 children. How many apples did each child get? What fraction did each child have?	(_)
Memo	a. **1 and 2 thirds each** b. **1 and 1 half each or 1 and 2 fourths/2 quarters each** c. **2 apples each, 1 sixth**	

1.11 Solve problems in context: money

1.11(1)

Sucker 10 c | Toffee 5 c

a. Jan has 20 cents. How many toffees can he buy? (_)

b. Fundi has 20 cents. How many suckers can he buy? (_)

Memo
a. **4 toffees**
b. **2 suckers**

1.11(1) *Teacher: Display real coins such as: 5c, 10c, 20c, 50c, R1, R2 and R5. Ask the learners to identify the coins and to describe them (e.g. size, colour, inscriptions).* (_)

Memo **Accept responses according to the teacher's selection.**

1.11(2) Uyanda had R20. She bought 3 small toys. The toys cost R5 each.

a. How much did the 3 toys cost? (_)

b. How much change must Uyanda get? (_)

Memo
a. **R15**
b. **R5**

1.11(2) *Teacher: Display real coins (e.g. 5c, 10c, 20c, 50c, R1, R2, R5) and R10 and R20 bank notes. Ask the learners to,*

- *identify the coins and bank notes ('Show me a R2 coin.')*
- *describe the coins and bank notes (re: size, colour, inscriptions)*
- *discuss the value of the coins and bank notes (e.g. 'Which coin is more? How do you know?')*

(_)

Memo **Accept responses according to the teacher's selection.**

1.11(3) At the fun fair you have to pay R5 to enter. Then you pay R4 per ride. Jan has R50 for the fair.

	a. How much money does Jan need for 6 rides? b. How much change will he have from R50?	(_) (_)
Memo	a. **R24 for six rides** b. **R21 change**	
1.11(4)	*Teacher: Display real coins (e.g. 5c, 10c, 20c, 50c, R1, R2, R5) and R10 and R20 bank notes. Ask the learners to,* • *identify the coins and bank notes ('Show me a R5 coin and a R10 bank note.')* • *describe the coins and bank notes (re: size, colour, inscriptions)* • *discuss the value of the coins and bank notes (e.g. 'Which coin is more? How do you know?')* • *In groups let the children match pictures of coins and bank notes to amounts on cards.*	(_)
Memo	**Accept responses according to the teacher's selection.**	
1.11(4)	A family goes to a concert. They buy 3 adult tickets and 1 child ticket.  a. How much money is that? b. Mother pays R80. How much change will she get?	 (_) (_)
Memo	a. **R72** b. **R8 change**	
1.11(5)	*Teacher: Display real coins (e.g. 5c, 10c, 20c, 50c, R1, R2, R5) and bank notes R10, R20, R50 and R100). Ask the learners to,* • *identify the coins and bank notes ('Show me a R50 bank note.')* • *describe the coins and bank notes (re: size, colour, inscriptions)* • *discuss the value of the coins and bank notes (e.g. 'Which bank note is more? How do you know?')* • *arrange pictures of selected coins and bank notes from the smallest to the greatest amount in groups.*	(_)

Memo	**Accept responses according to the teacher's selection.**	
1.11(5)	Sara bought 2 dolls that cost R25 each. She bought sweets for R8. a. How much did she spend? (_) b. If she got R12 change, how much did she have to start with? (_)	
Memo	a. **R58** b. **R70**	
1.11(6)	*Teacher: Display real coins (e.g. 5c, 10c, 20c, 50c, R1, R2, R5) and bank notes R10, R20, R50, R100, R200 (or pictures thereof). Ask the learners to,* • *identify the coins and bank notes ('Show me a R50 bank note.')* • *describe the coins and bank notes (re: size, colour, inscriptions)* • *discuss the value of the coins and bank notes (e.g. 'Which bank note is more?; How do you know?')* • *create a money poster with pictures of all the coins and bank notes in order from the greatest to the smallest amount.* (_)	
Memo	**Accept responses according to the teacher's selection.**	
1.11(6)	Sindi buys 5 cooldrinks, 3 hamburgers and 2 packets of chips. **SNACKS** Cooldrink R2 Hamburgers R5 Chips R3 a. How much will this cost? (_) b. Sindi pays with a R50 note. How much change must she get? (_)	
Memo	a. **R31** b. **R19**	

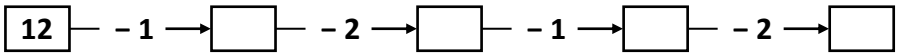
1.13 Context-free calculations: subtraction

1.13(1)_S a. Make the sides equal. Write in the numbers.

3 – 1 = ___ 6 – 2 = ___

5 – 1 = ___ 6 – 4 = ___ (_)

b. Write in the numbers.



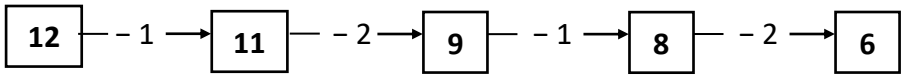
(_)

Memo a.

3 – 1 = **2** 6 – 2 = **4**

5 – 1 = **4** 6 – 4 = **2**

b.



1.13(2)_S Make the sides equal. Write in the numbers.

a. ___ = 8 – 5

___ = 8 – 3

___ = 10 – 6

___ = 10 – 4 (_)

b. 12 – 5 = ___

17 – 4 = ___

___ = 19 – 6

___ = 18 – 11 (_)

Memo a.
3 = 8 – 5
5 = 8 – 3
4 = 10 – 6
6 = 10 – 4

b.
12 – 5 = **7**
17 – 4 = **13**
13 = 19 – 6
7 = 18 – 11

1.13(3)_S Make the sides equal. Write in the numbers.

a. 15 − ___ = 8

15 − ___ = 9

18 − ___ = 12

18 − ___ = 14 (_)

b. 56 − 24 = ___

65 – 38 = ___ (_)

Memo a.
15 − **7** = 8
15 − **6** = 9
18 − **6** = 12
18 − **4** = 14

b.
56 − 24 = **32**
65 – 38 = **27**

1.13(4)_S Make the sides equal. Write in the numbers.

a. 16 − 2 = ___

14 = ___ − 2

14 = ___ − 3

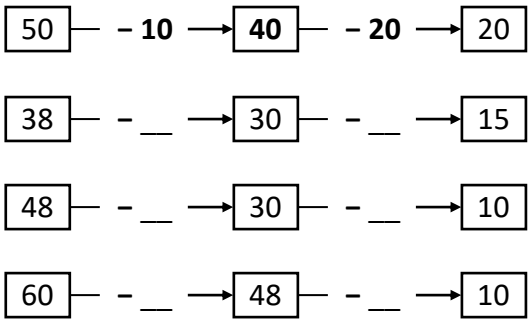
17 – 3 = ___ (_)

b. 74 – 33 = ___

91 – 67 = ___

80 – ___ = 54 (_)

c. Complete. The first one has been done for you.



(_)

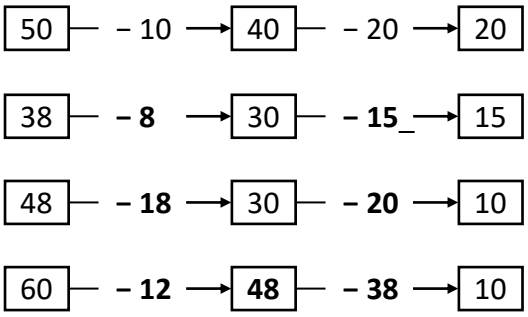
Memo a.

16 − 2 = **14**
14 = **16** − 2
14 = **17** − 3
17 – 3 = **14**

b.

74 – 33 = **41**
91 – 67 = **24**
80 – **26** = 54

c.



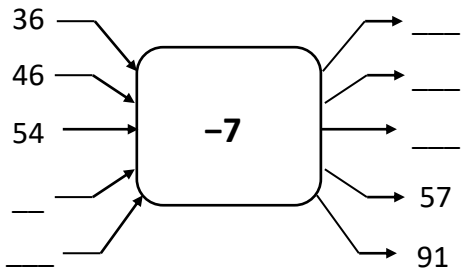
1.13(5)_S Make the sides equal. Write in the numbers.

a. 268 – 46 = ___

440 – 50 = ___

464 – 307 = ___ (_)

b. Complete:

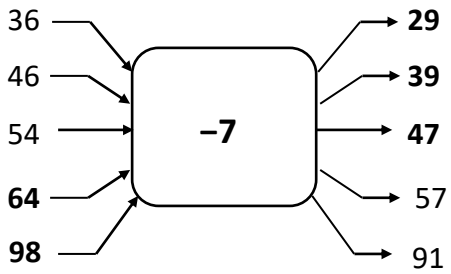


(_)

Memo a.

268 – 46 = **222**
440 – 50 = **390**
464 – 307 = **157**

b.



1.13(6)_S Make the sides equal. Write in the numbers.

a. 648 – 236 = ___

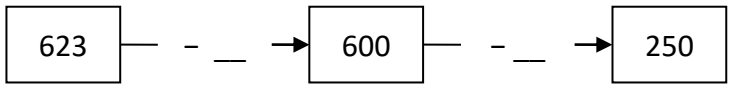
777 – 459 = ___

863 – ___ = 574

280 = 600 − ___

(_)

b. Complete.

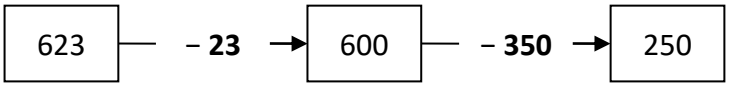


(_)

Memo a.

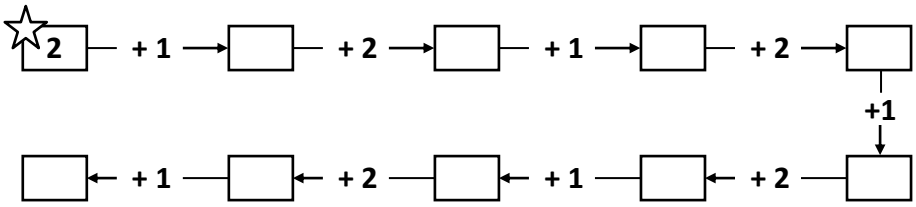
648 – 236 = **412**
777 – 459 = **318**
863 – **289** = 574
280 = 600 – **320**

b.



1.13 Context-free calculations: addition

1.13(1)_A a. Complete. Start at the star.



(_)

b. Make the sides equal. Write in the numbers.

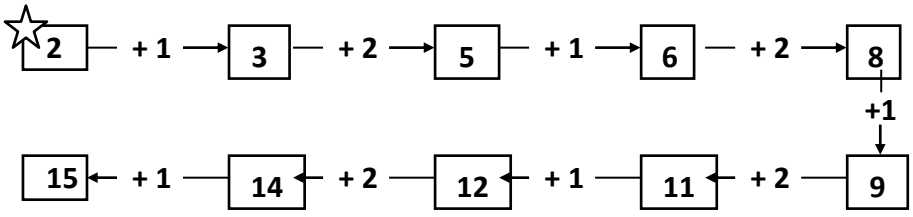
3 + 2 = ___

3 + 3 = ___

4 + 1 = ___

4 + 2 = ___ (_)

Memo a.

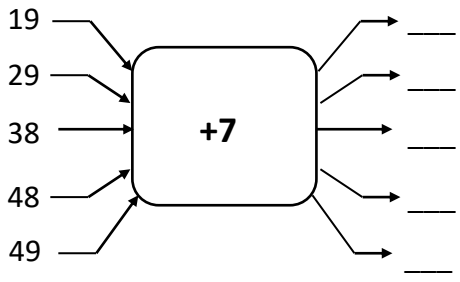


b.

3 + 2 = **5**
3 + 3 = **6**
4 + 1 = **5**
4 + 2 = **6**

1.13(2)_A	Make the sides equal. Write in the numbers. a. ___ = 5 + 3 ___ = 4 + 4 ___ = 5 + 5 ___ = 7 + 3 (_) b. 12 + 4 = ___ 15 + 3 = ___ ___ = 9 + 6 ___ = 11 + 7 (_)
Memo	a. **8** = 5 + 3 **8** = 4 + 4 **10** = 5 + 5 **10** = 7 + 3 b. 12 + 4 = **16** 15 + 3 = **18** **15** = 9 + 6 **18** = 11 + 7
1.13(3)_A	Make the sides equal. Write in the numbers. a. 16 = ___ + 6 16 = ___ + 7 15 = 3 + ___ 13 = 8 + ___ 8 + 5 = 10 + ___ (_) b. 23 + 36 = ___ 25 + 48 = ___ 34 = 17 + ___ (_)

c. Complete.



(_)

Memo

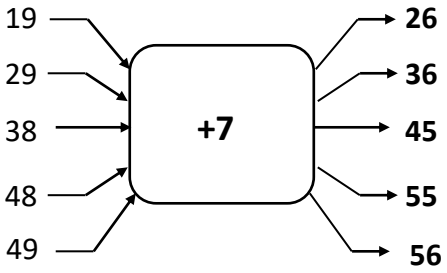
a.

16 = **10** + 6
16 = **9** + 7
15 = 3 + **12**
13 = 8 + **5**
8 + 5 = 10 + **3**

b.

23 + 36 = **59**
25 + 48 = **73**
34 = 17 + **17**

c.



1.13(4)_A Make the sides equal. Write in the numbers.

a. 13 + 3 = 11 + ___

16 + 3 = 11 + ___

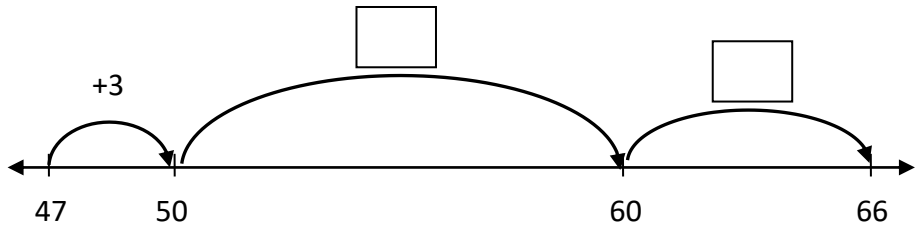
9 + 8 = 10 + ___ (_)

b. 30 + 54 + 17 = ___

85 = 25 + ___ + 30

45 + 38 = ___ (_)

c. What numbers go in the boxes ☐ ?



47 + ☐ = 66 (_)

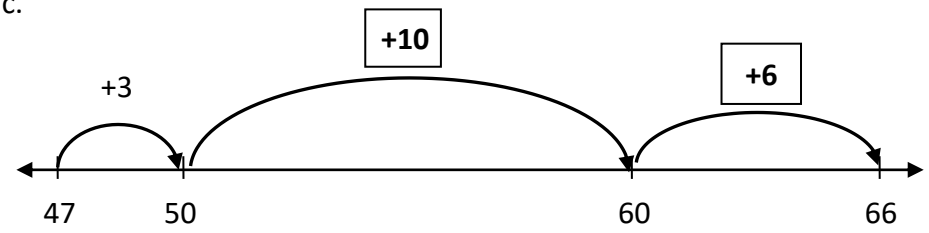
Memo a.

13 + 3 = 11 + **5**
16 + 3 = 11 + **8**
9 + 8 = 10 + **7**

b.

30 + 54 + 17 = **101**
85 = 25 + **30** + 30
45 + 38 = **83**

c.



47 + **19** = 66

1.13(5)_A Make the sides equal. Write in the numbers.

a. 242 + 34 = ___

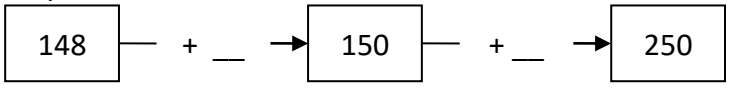
323 + 48 = ___

330 + 80 = ___

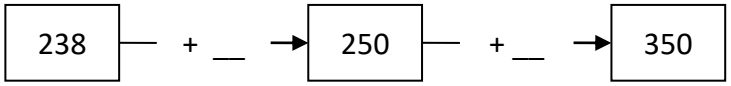
52 + ___ + 34 = 269

464 + 307 = ___ (_)

b. Complete.



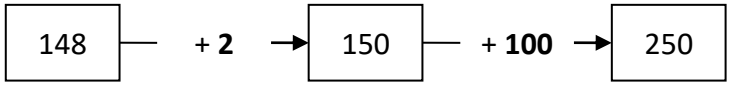
(_)

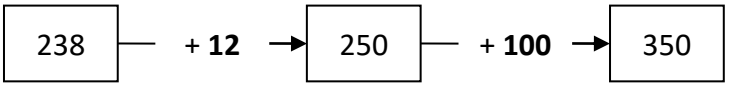


Memo a.

242 + 34 = **276**
323 + 48 = **371**
330 + 80 = **410**
52 + **183** + 34 = 269
464 + 307 = **771**

b.





1.13(6)_A a. Make both sides equal to <u>30</u>.

24 + ___ = 16 + ___

22 + ___ = 18 + ___

13 + ___ = 27 + ___

19 + ___ = 20 + ___ (_)

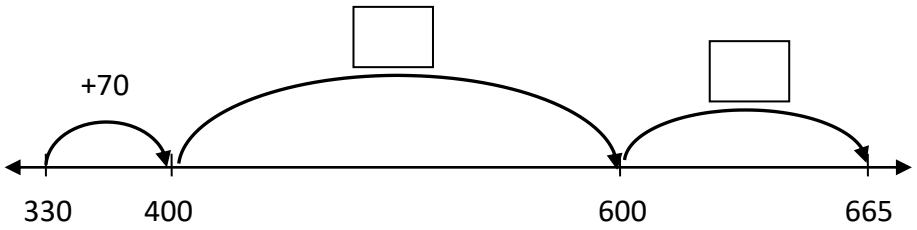
b. Make the sides equal. Write in the numbers.

567 + 226 = ___

496 + 308 = ___

145 + ___ + 180 = 425 (_)

c. What numbers go in the boxes ☐ ?



330 + ☐ = 665 (_)

d. Complete.

(_)

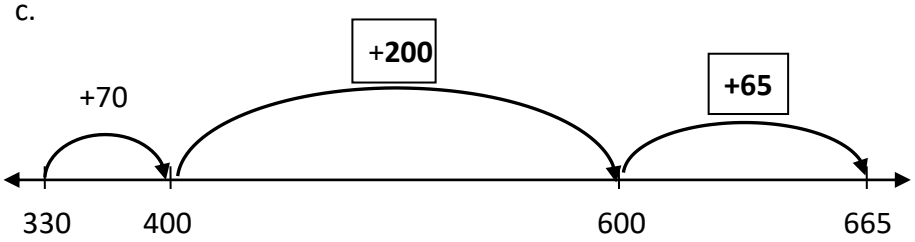
Memo a.

24 + **6** = 16 + **14**
22 + **8** = 18 + **12**
13 + **17** = 27 + **3**
19 + **11** = 20 + **10**

b.

567 + 226 = **793**
496 + 308 = **804**
145 + **100** + 180 = 425

c.

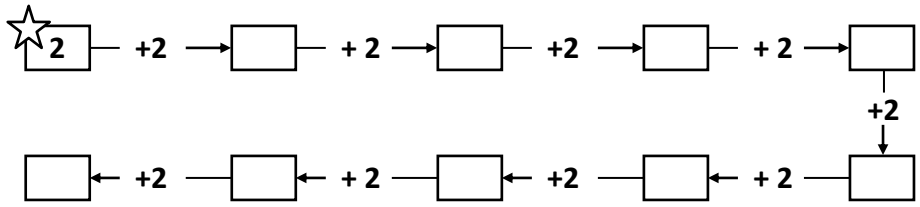


330 + **335** = 665

d.

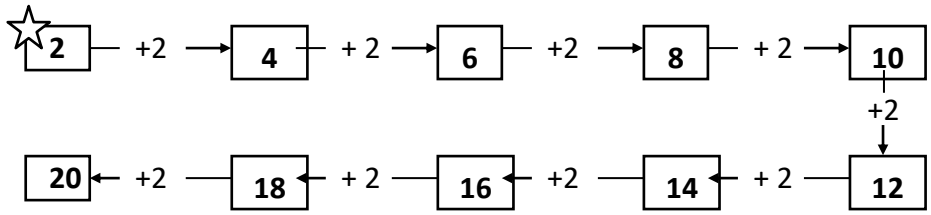
1.14 Context-free calculations: repeated addition leading to multiplication

1.14(1)_M Complete. Start at the star.



(_)

Memo



1.14(2)_M Complete.

4 + 4 + 4 + 4 = ___ 4 groups of 4 = ___

___ = 3 + 3 + 3 + 3 + 3 3 groups of 3 = ___ (_)

Memo

4 + 4 + 4 + 4 = **16** 4 groups of 4 = **16**

15 = 3 + 3 + 3 + 3 + 3 3 groups of 3 = **9**

1.14(3)_M a. Complete.

2 groups of 5 = ___ 2 × 5 = ___

4 groups of 5 = ___ 4 × 5 = ___

8 groups of 5 = ___ 8 × 5 = ___ (_)

b. Complete the table.

Hands	1	2	3	4	5	10
No of fingers	5					

(_)

Memo

a.

2 groups of 5 = **10** 2 × 5 = **10**

4 groups of 5 = **20** 4 × 5 = **20**

8 groups of 5 = **40** 8 × 5 = **40**

b.

Hands	1	2	3	4	5	10
No of fingers	5	**10**	**15**	**20**	**25**	**50**

1.14(4)_M a. Complete the number sentences.

3 × 2 = ___

6 × 2 = ___

12 × 2 = ___

___ = 10 × 2

2 × 4 = ___

4 × 4 = ___

8 × 4 = ___

___ = 10 × 4 (_)

b. Complete.

Girls	1	2	3	4	6	8	10
No of ears	2	4					

(_)

Memo a.
3 × 2 = **6**
6 × 2 = **12**
12 × 2 = **24**
20 = 10 × 2
2 × 4 = **8**
4 × 4 = **16**
8 × 4 = **32**
40 = 10 × 4

b.

Girls	1	2	3	4	6	8	10
No of ears	2	4	**6**	**8**	**12**	**16**	**20**

1.14(5)_M Make the sides equal. Write in the numbers.

4 × ___ = 16

___ × 4 = 32

16 × 4 = ___

___ × 3 = 18

12 × ___ = 36

24 × 3 =

___ × 3 = 75 (_)

Memo
4 × **4** = 16
8 × 4 = 32
16 × 4 = **64**
6 × 3 = 18
12 × **3** = 36
24 × 3 = **72**
25 × 3 = 75

1.14(6)_M Make the sides equal in different ways.

24 = ___ × ___

24 = ___ × ___

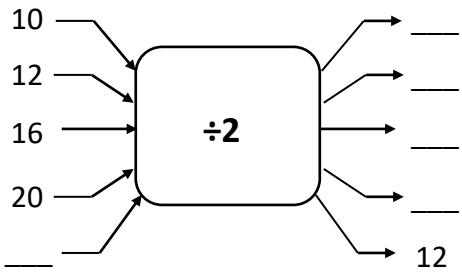
24 = ___ × ___

24 = ___ × ___ (_)

Memo
24 = **6 × 4;** 24 = **4 × 6**
24 = **3 × 8;** 24 = **8 × 3**
24 = **12 × 2;** 24 = **2 × 12**
24 = **24 × 1;** 24 = **1 × 24**

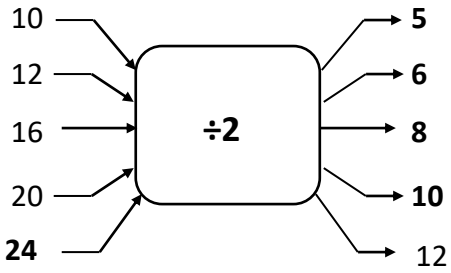
1.15 Context-free calculations: division

1.15(3)_D Complete.



(_)

Memo



1.15(4)_D Complete.

12 ÷ 4 = ___

24 ÷ 4 = ___

48 ÷ 4 = ___

52 ÷ 4 = ___

5 ÷ 5 = ___

15 ÷ 5 = ___

30 ÷ 5 = ___

45 ÷ 5 = ___

50 ÷ 5 = ___ (_)

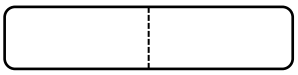
Memo	12 ÷ 4 = **3** 24 ÷ 4 = **6** 48 ÷ 4 = **12** 52 ÷ 4 = **13** 5 ÷ 5 = **1** 15 ÷ 5 = **3** 30 ÷ 5 = **6** 45 ÷ 5 = **9** 50 ÷ 5 = **10**
1.15(5)_D	Make the sides equal. Write in the numbers. 18 ÷ ___ = 6 ___ ÷ 3 = 8 30 ÷ 3 = ___ 20 ÷ ___ = 5 ___ ÷ 4 = 7 36 ÷ 4 = ___ (_)
Memo	18 ÷ **3** = 6 **24** ÷ 3 = 8 30 ÷ 3 = **10** 20 ÷ **4** = 5 **28** ÷ 4 = 7 36 ÷ 4 = **9**
1.15(6)_D	Complete. Where there are remainders, write them down. 64 ÷ ___ = 32 64 ÷ 3 = ___ 72 ÷ 4 = ___ 72 ÷ 5 = ___ ___ ÷ 10 = 6 60 ÷ ___ = 12 (_)

Memo 64 ÷ **2** = 32
64 ÷ 3 = **21 rem 1**
72 ÷ 4 = **18**
72 ÷ 5 = **14 rem 2**
60 ÷ 10 = 6
60 ÷ **5** = 12

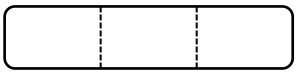
1.17 Context-free calculations: fractions

1.17(3) These bars are cut into equal pieces. Complete.

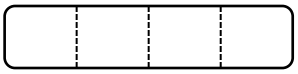
- Each piece is called: 1 half



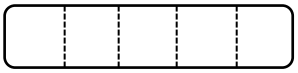
- Each piece is called: _____



- Each piece is called: _____



- Each piece is called: _____

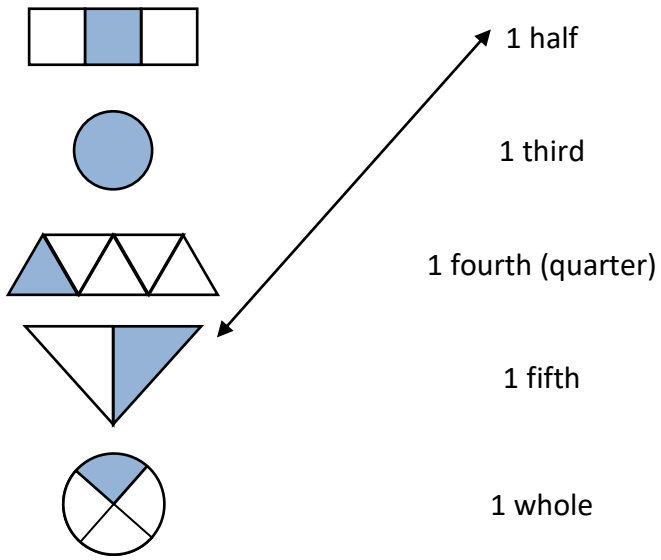


(_)

Memo

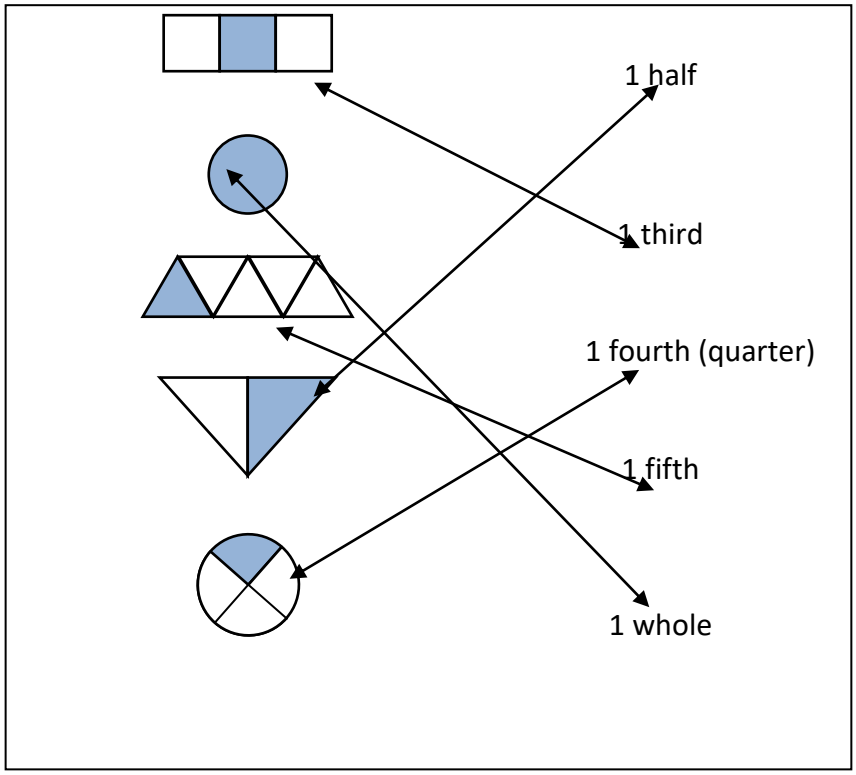
- Each piece is called: **1 third**
- Each piece is called: **1 fourth/quarter**
- Each piece is called: **1 fifth**

1.17(4) Match the fractions with the shaded parts.

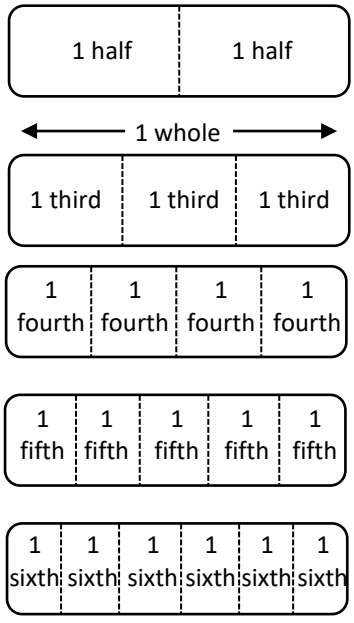


(_)

Memo



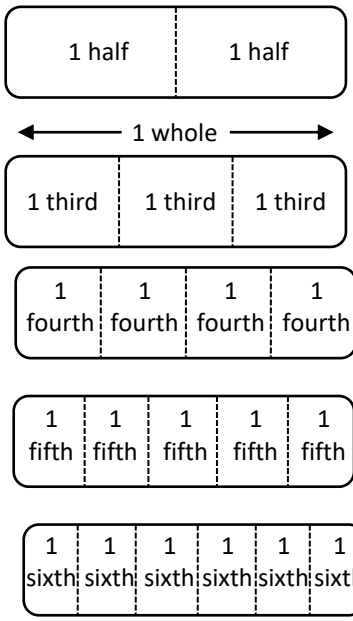
1.17(5) These bars are cut into equal pieces. Complete.



- 1 whole is equal to: 2 halves
- 1 whole is equal to: _____
- 1 whole is equal to: _____
- 1 whole is equal to: _____
- 1 whole is equal to: _____

(_)

Memo

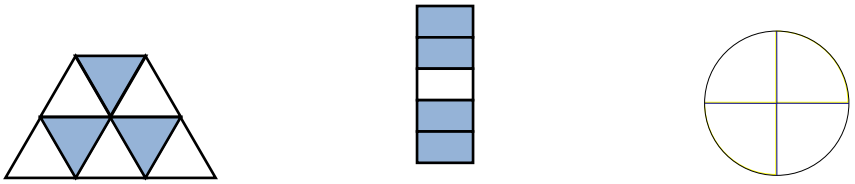


- 1 whole is equal to: 2 halves
- 1 whole is equal to: **3 thirds**
- 1 whole is equal to: **4 fourths**
- 1 whole is equal to: **5 fifths**
- 1 whole is equal to: **6 sixths**

1.17(6)

- Write down the fraction names for each shaded part at a, b, c and d.
- Shade in the fraction parts at e & f.

a _____ b _____ e 2 sixths _____

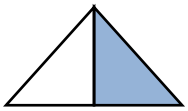


c _____ d _____ f 2 fourths

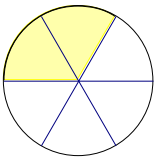
(_)

Memo

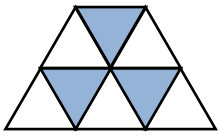
a 2 thirds



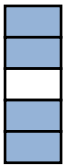
b 1 half



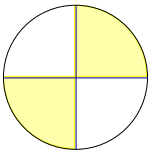
e 2 sixths (any 2 parts)



c 3 eighths



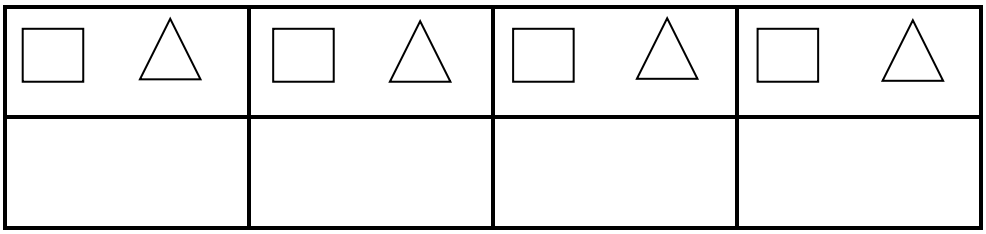
d 4 fifths



f 2 fourths (any 2 parts)

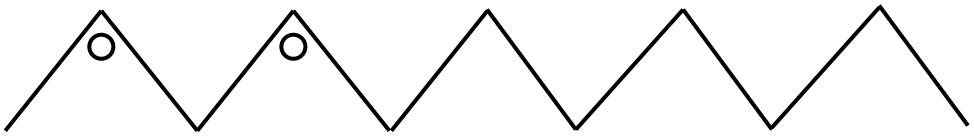
2.1 Geometric patterns

2.1(1)_GP a. Copy the shapes in the pattern.



(_)

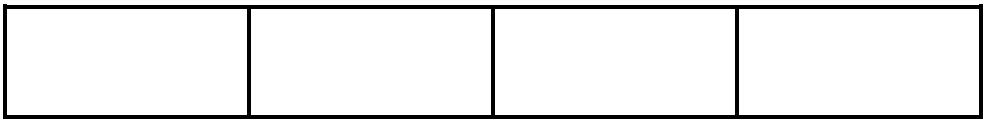
b. Copy the pattern and draw in the circles.



(_)

Memo **Accept any reasonable drawings.**

2.1(2)_GP a. Draw any 2 shapes in the first block. Repeat the shapes in exactly the same way in the rest of the blocks.

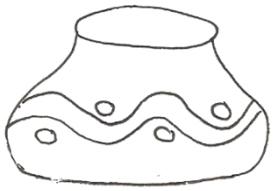
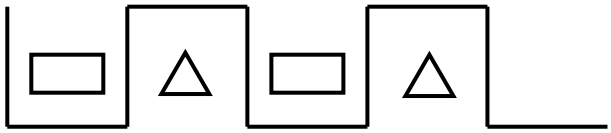
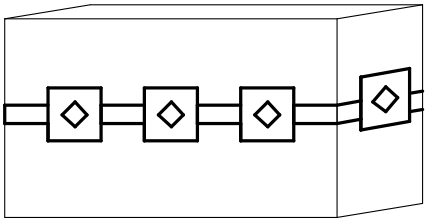
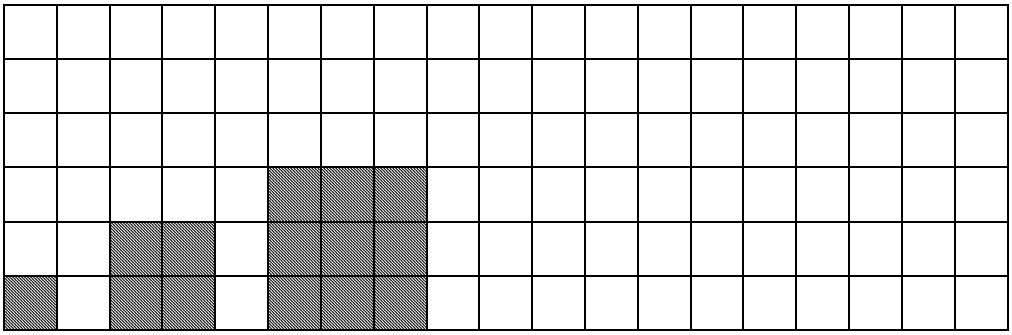


(_)

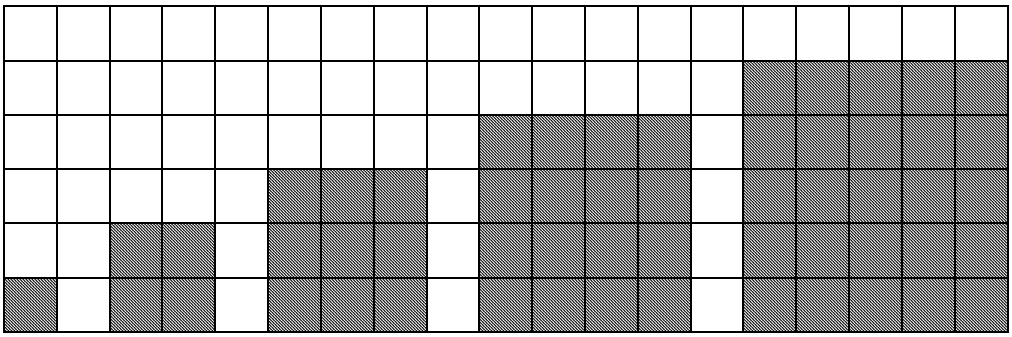
b. Copy and extend the pattern so that you have 4 circles in your pattern.

(_)

Memo **Accept any reasonable drawings.**

2.1(3)_GP	Copy the pattern on the vase across the page in your book.  (_)
Memo	**Accept any reasonable drawings.**
2.1(4)_GP	Extend the pattern so that you have 3 triangles in your pattern.  (_)
Memo	**Accept any reasonable drawings.**
2.1(5)_GP	Copy only the pattern you can see on the box. Make sure that you have 4 squares in your pattern.  (_)
Memo	**Accept any reasonable drawings.**
2.1(6)_GP	The first three pictures make a pattern. Extend the pattern.  (_)

Memo



2.2 Number patterns

2.2(1)_NP Fill in the missing numbers in the sequence.

a.

1	2	___	___	5	6	___	___	9	___

(_)

b. 11 ; 10 ; ___ ; ___ ; ___ ; ___ ; 5 , 4 ; ___ (_)

Memo a.

1	2	**3**	**4**	5	6	**7**	**8**	9	**10**

b. 11 ; 10 ; **9 ; 8 ; 7 ; 6** ; 5 , 4 ; **3**

2.2(2)_NP Count and complete.

a. 86 ; 85 ; 84 ; ___ ; ___ ; ___ ; 80 ; ___ ; ___ (_)

b. 62 ; 64 ; 66 ; 68 ; ___ ; ___ ; ___ ; 76 ; ___ ; ___ (_)

c. 55 ; 60 ; 65 ; ___ ; ___ ; ___ ; 85 ; ____; ___ (_)

Memo a. 86 ; 85 ; 84 ; **83 ; 82 ; 81** ; 80 ; **79 ; 78**
b. 62 ; 64 ; 66 ; 68 ; **70 ; 72 ; 74** ; 76 ; **78 ; 80**
c. 55 ; 60 ; 65 ; **70 ; 75 ; 80** ; 85 ; **90 ; 95**

2.2(3)_NP Fill in the missing numbers in the sequence.

a. 150 ; 140 ; 130 ; ___ ; ___ ; ___ ; 90 ; ___ ; ___ ; 60 (_)

b.

130	133	___	___	142	___	___	151	___

(_)

c. 122 ; 124 ; 126 ; ___ ; ___ ; ___ ; ___ ; 136 ; ___ (_)

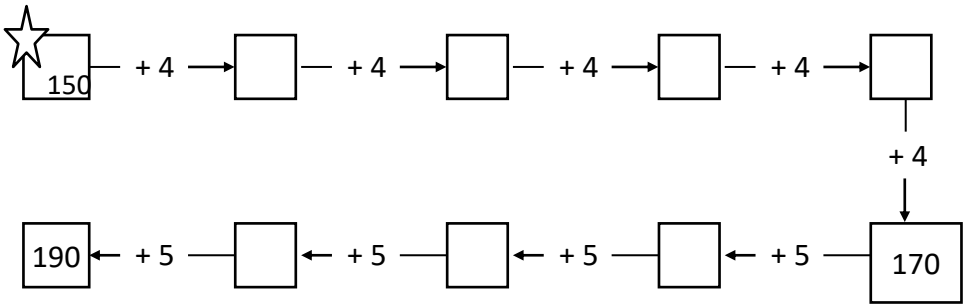
Memo a. 150 ; 140 ; 130 ; **120 ; 110 ; 100 ; 90** ; **80 ; 70 ;** 60
b.

130	133	**136**	**139**	142	**145**	**148**	151	**154**

c. 122 ; 124 ; 126 **; 128 ; 130 ; 132 ; 134** ; 136 ; **138**

2.2(4)_NP Complete the number sequences.

a.



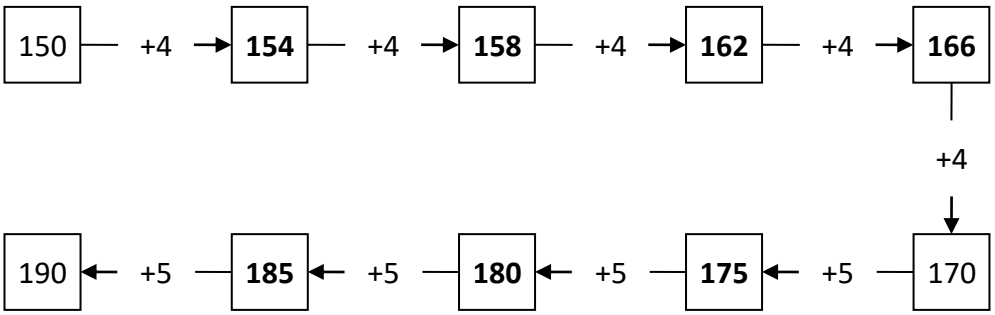
(_)

b. 180 ; 178 ; 176 ; ___ ; ___ ; ___ ; 168 ; ___ ; ___ (_)

c. ___ ; 190 ; 185 ; ___ ; ___ ; ___ ; 165 ; ___ ; 155 (_)

d. 170 ; 166 ; ___ ; ___ ; 154 ; ___ ; 146 ; ___ ; ___; 134 (_)

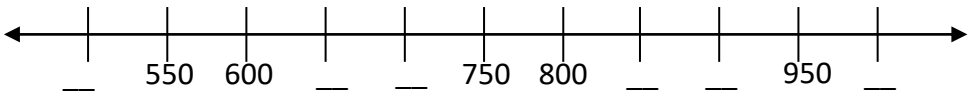
Memo a.



b. 180 ; 178 ; 176 ; **174 ; 172 ; 170** ; 168 ; **166 ; 164**
c. 195 ; 190 ; 185 ; **180 ; 175 ; 170** ; 165 ; **160** ; 155
d. 170 ; 166 ; **162 ; 158** ; 154 ; **150 ;** 146 ; **142 ; 138 ;** 134

2.2(5)_NP Fill in the numbers to complete the number sequences.

a.

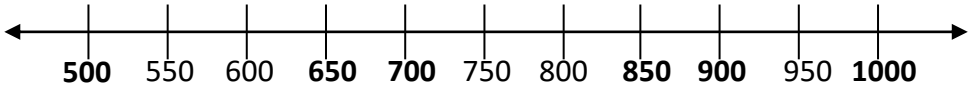


(_)

b. 900 ; ___ ; ___ ; 600 ; 500 ; ___ ; ___ ; 200 (_)

c. 201 ; 203 ; ___ ; ___ ; ___ ; 111 ; 113 ; ___ ; ___ ; 119 (_)

Memo a.



b. 900 ; **800 ; 700** ; 600 ; 500 **; 400 ; 300 ;** 200
c. 201 ; 203 ; **205 ; 207 ; 209** ; 111 ; 113 **; 115** ; **117 ;** 119

2.2(6)_NP Complete the number sequences.

a.

___	___	350	450	___	___	750	___	950

(_)

b. ___ ; ___ ; 225 ; 250 ; ___ ; 300 ; ___ ; 350 ; ___ ; ___ ; 425 (_)

c. ___ ; ___ 860 ; 840 ; ___ ; ___ ; ___ ; 760 ; ___ ; 720 (_)

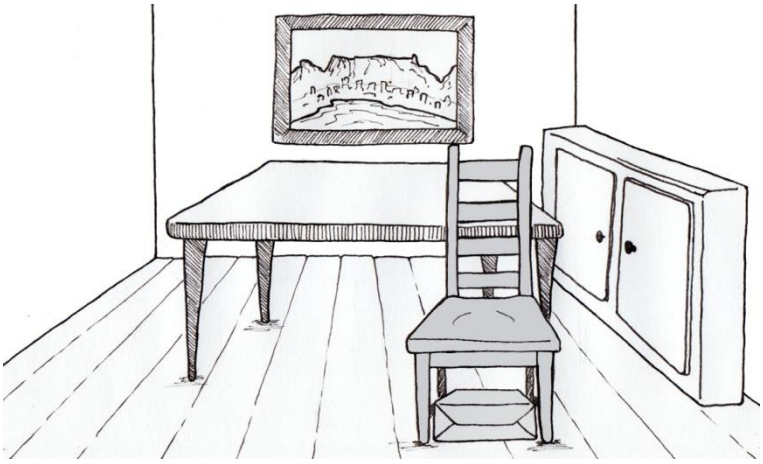
Memo a.

150	**250**	350	450	**550**	**650**	750	**850**	950

b. **175 ; 200 ;** 225 ; 250 ; **275** ; 300 ; **325** ; 350 ; **375 ; 400** ; 425
c. **900** ; **880** ; 860 ; 840 ; **820 ; 800 ; 780 ;** 760 ; **740** ; 720

3.1 Space and shape (Geometry): position, orientation and views

3.1(1) a. Look at the picture. Say where the things are.

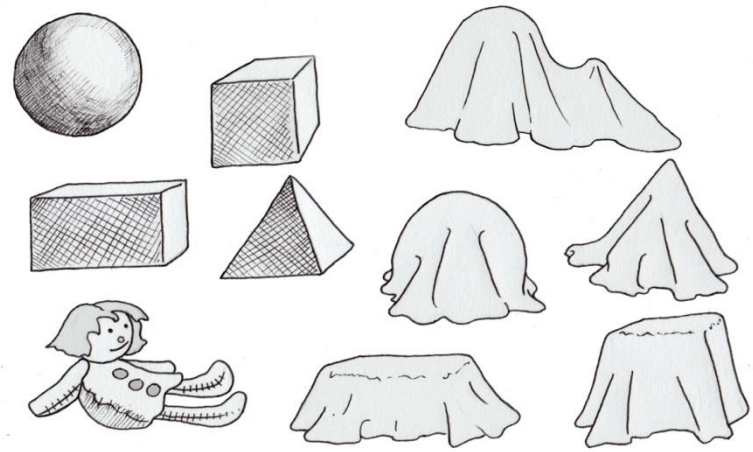
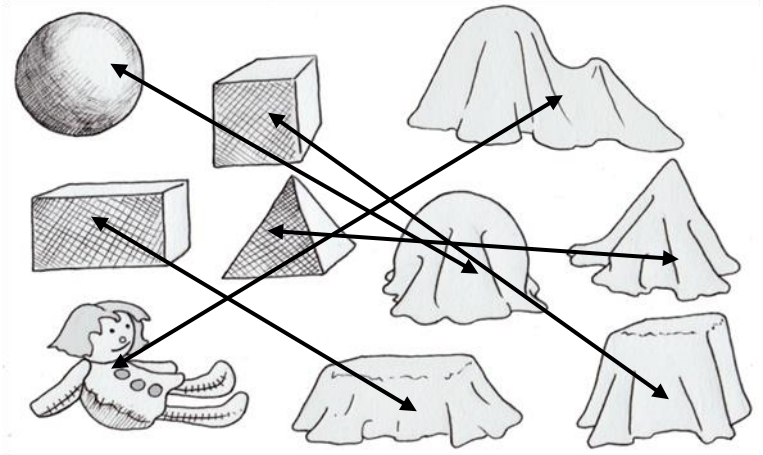


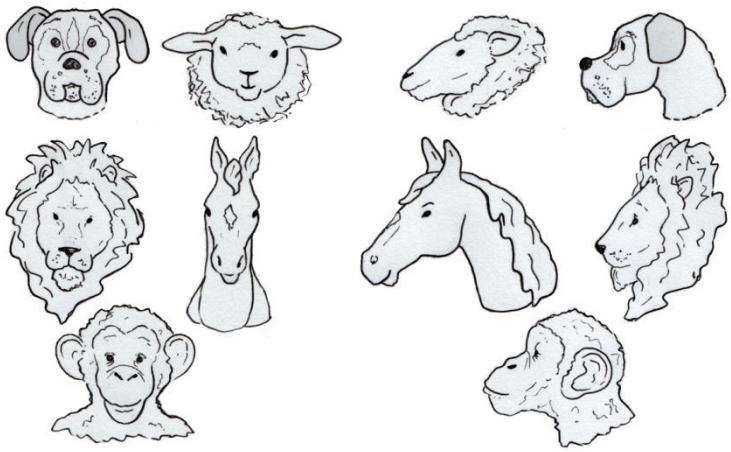
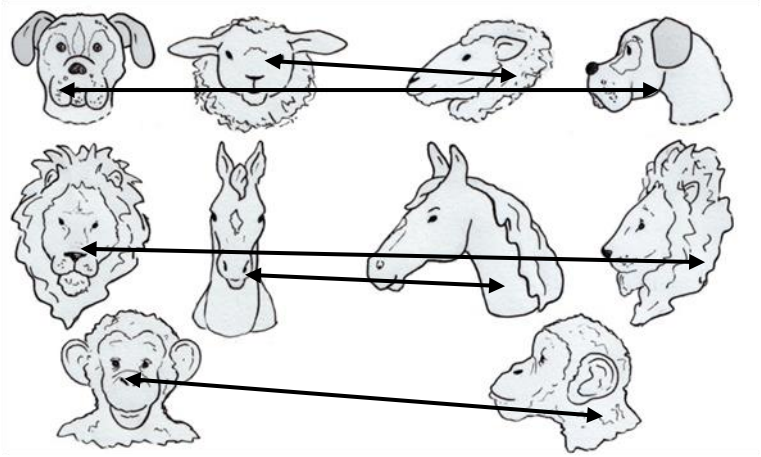
The chair is …… the table.
The box is …… the chair.
The bookshelf is …… the table.
The picture is …… the table. (_)

Memo
The chair is **in front of** the table.
The box is **under** the chair.
The bookshelf is **to the right of** the table.
The picture is **behind** the table.

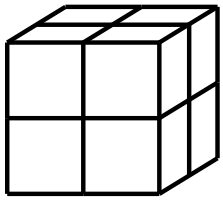
b. *Teacher: Work with a small group of learners. Place 4 objects on a table in such a way that the objects are left/right or behind/in front of each other. Let the earners stand around the table and describe where the objects are in relation to each other, from where they are standing e.g. The pencil is to the right of the book.* (_)

Memo b. **Accept responses according to the teacher's instructions.**

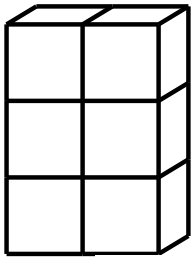
3.1(2)	a. Look at the pictures. What is under the cloth? Draw a line to show the matching shapes. 	(_)
Memo	a. 	
	b. *Teacher: Use 2 balls, 2 cubes, 2 teddies, 2 boxes of cereal and 2 pyramid-shaped objects for this activity. Cover one of the two objects with a small cloth so that the shape of the object can be seen. Do this for all the objects. Do not let the learners see you doing this.* *Teacher: Match the covered object with the object you can see.*	(_)
	c. *Teacher: Give the following instructions:* • *Put your pencil on top of a book.* • *Put your ruler next to your right hand etc.*	(_)
Memo	b. **Accept responses according to the teacher's instructions.** c. **Accept responses according to the teacher's instructions.**	

3.1(3)	a.	Match the side views of these animals with their front views. Draw lines from the one to the other.  (_)
Memo	a.	
	b.	*Teacher: In the classroom, give directions for 5 learners to follow. Learners follow your directions e.g. Walk forwards to the next desk. Turn right towards the windows. Walk around the teacher's desk. Put your left hand on the table. Walk back to your desk.* (_)
Memo	b.	**Accept responses according to the teacher's instructions.**
3.1(4)		*Teacher: Draw a diagram of say 8 blocks. Learners must use blocks to build so that the diagram and the blocks look the same.*

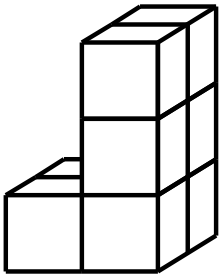
a. How many blocks in each tower?



A _____



B _____

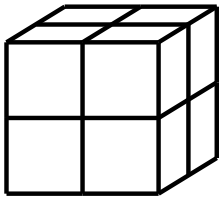


C _____

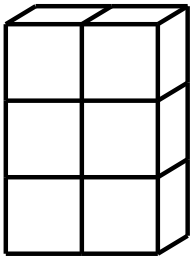
Build the towers with blocks. (_)

b. Which towers are the biggest? Why? (_)

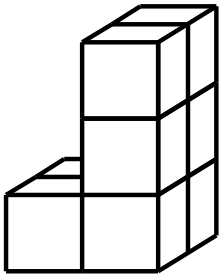
Memo a.



8



6



8

b.

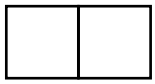
Which towers are the biggest? **A & C**

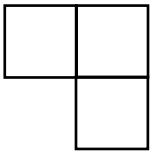
Why? **They have the most blocks.**

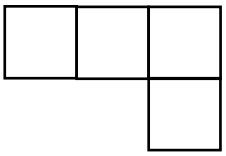
3.1(4) The blocks were painted at the bottom. They left these 'block marks' on the floor. Match the 'block marks' to the blocks.

a. How many blocks are touching the floor? Write in the number.
b. Draw lines from the 'block marks' to the correct blocks.

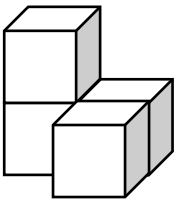
Block marks

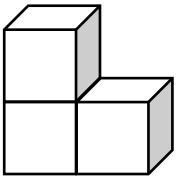


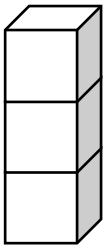


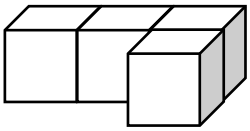


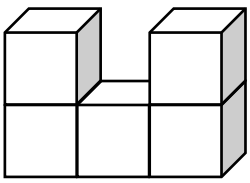
Blocks





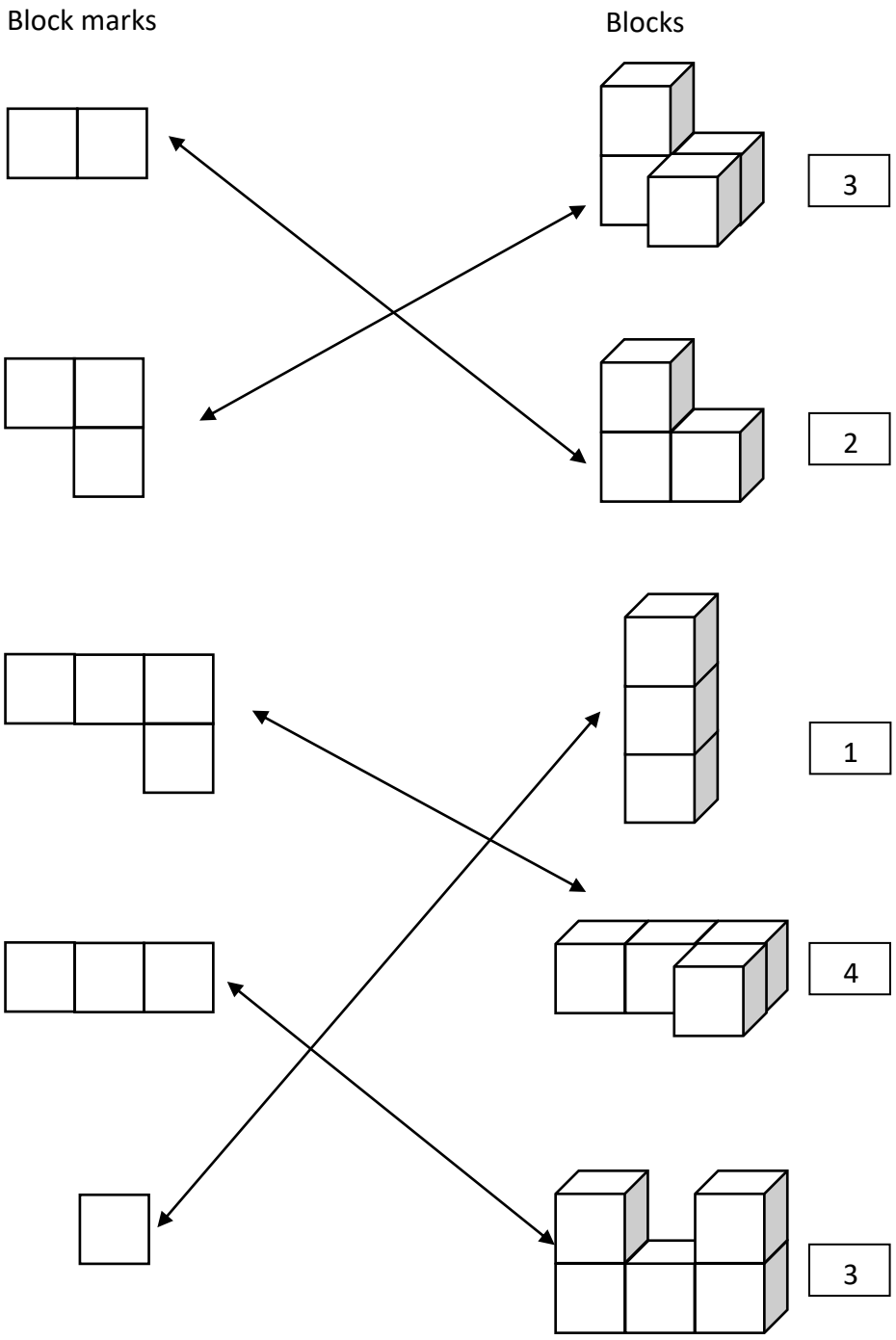






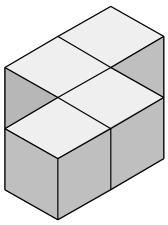
(_)

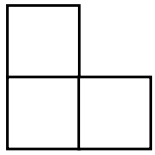
Memo

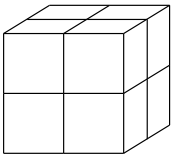


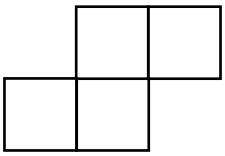
3.1(5) a. Match the side view with the top view of the following objects. Draw lines from the side view to the correct top view.

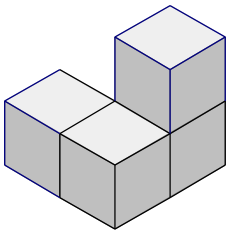
Side View | Top View

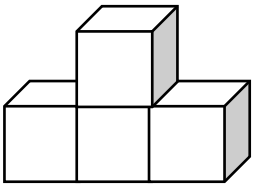


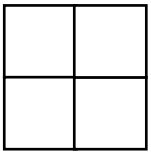






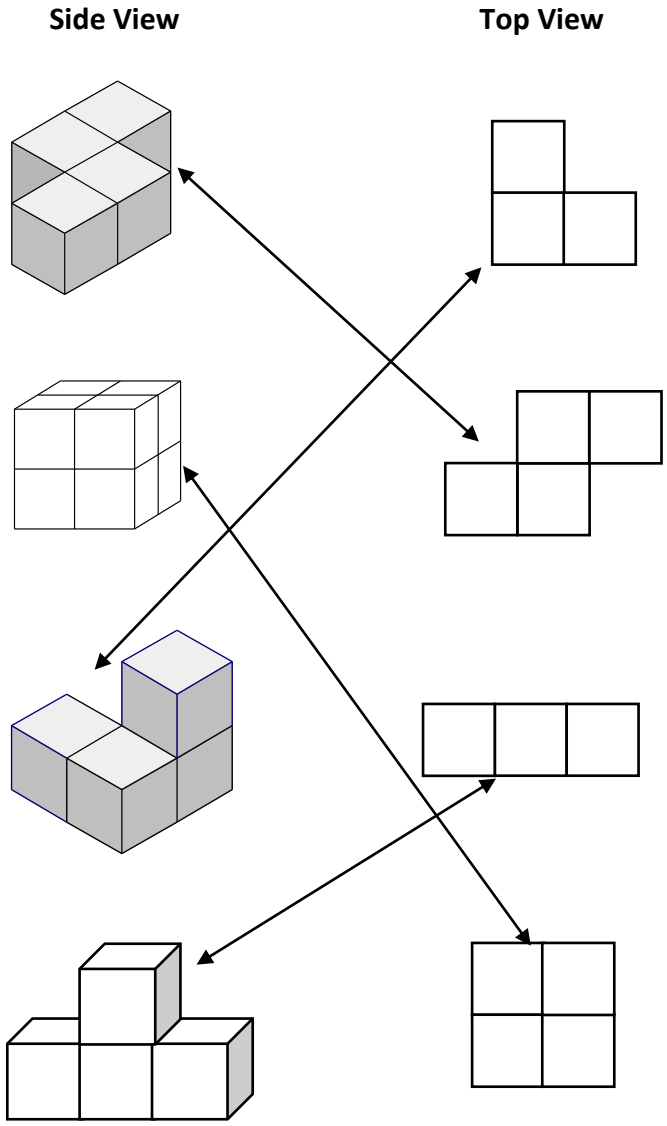






b. *Teacher: Learners work in groups of four. Place a group of 6 blocks (2 levels) in the centre of a learner's desk. Each learner sits at a different side of the desk.*
Draw how you see the blocks in front of you. (_)

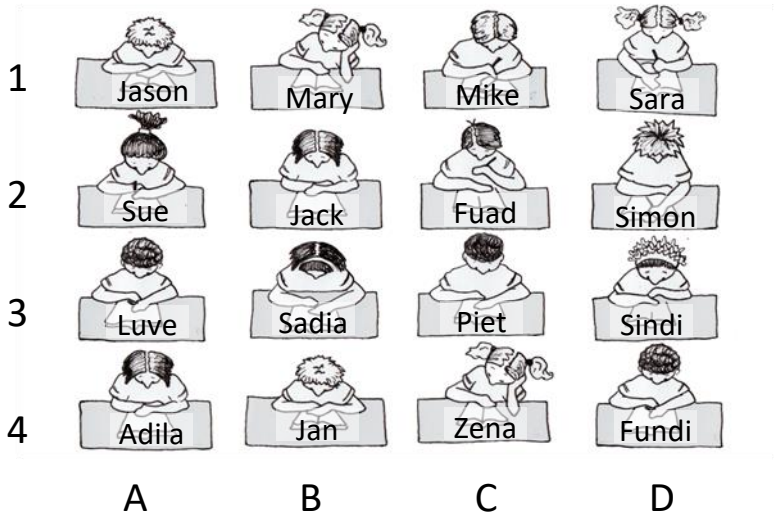
Memo a.



b. **Accept any reasonable drawings.**

(_)

3.1(6) Look at the diagram below.



a. Who sits at the desk in position A2? (_)

b. Who sits at the desk in position C3? (_)

c. In what position is Simon's desk? (_)

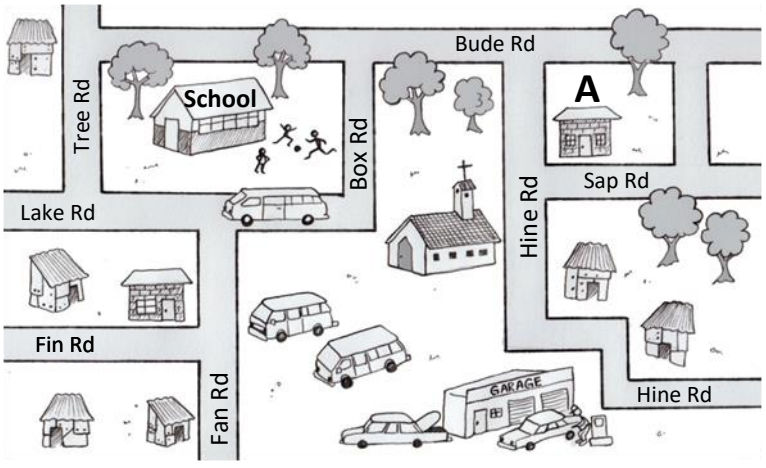
d. In what position is Luve's desk? (_)

Memo

a. **Sue**
b. **Piet**
c. **D2**
d. **A3**

(_)

3.1(6) Look at the map below.



a. Explain how to get from House A to the School. (_)

b. Explain how to get from the school to the garage. (_)

Memo a. **From House A to the school**

- **Turn right into Sap Road and then turn right into Hine Road**
- **Turn left into Bude Road.**
- **Turn left into Box Road and then turn right into Lake Road.**

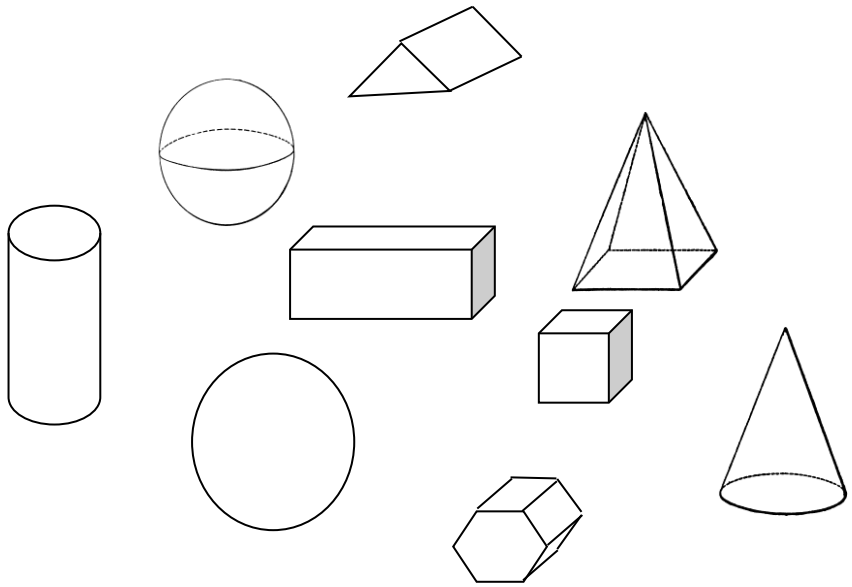
b. **From the school to the garage**

- **Turn left into Lake Road and turn right into Fan Road.**
- **Walk to the end of Fan Road and the garage is to the left.**

3.2 Space and shape (Geometry): 3D objects

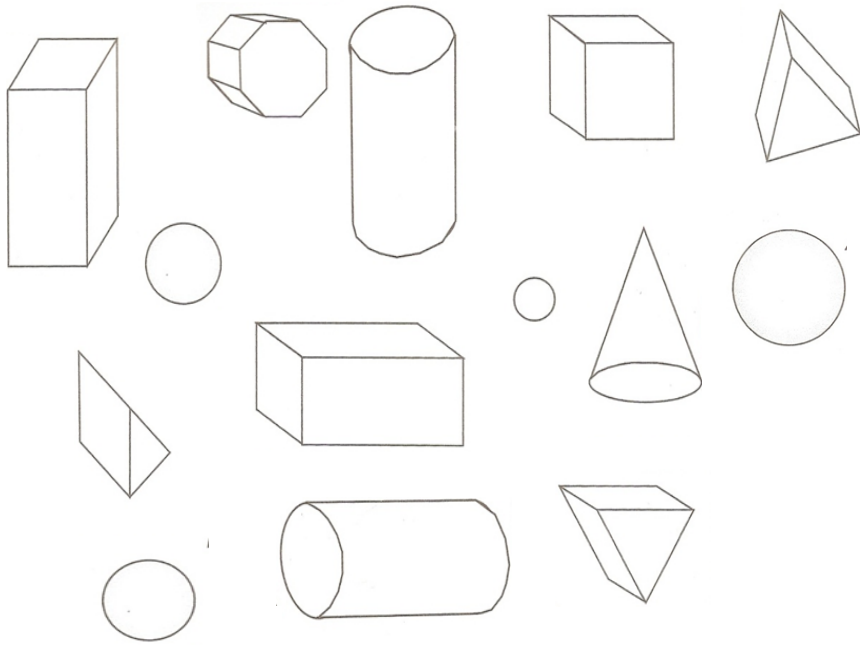
3.2(1) *Teacher: Give learners an assortment of 3D objects.*

a. Sort the objects into ball shapes and box shapes.



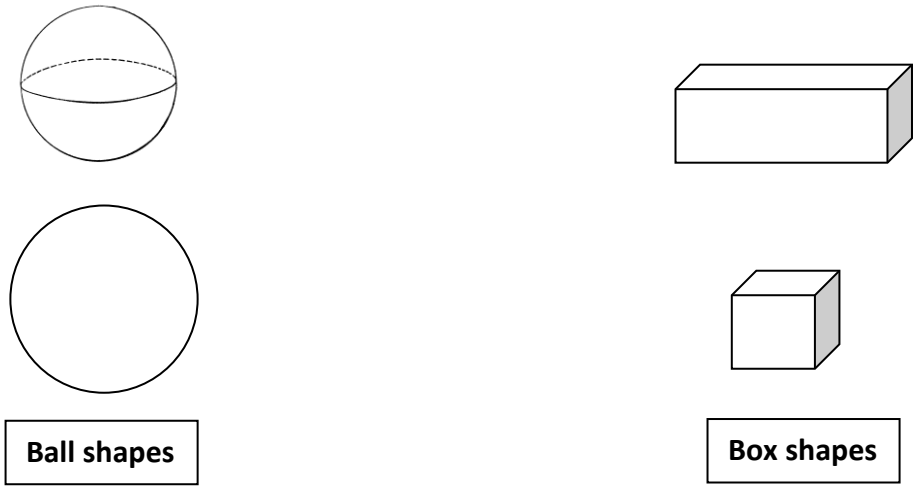
(_)

b. Circle the ball shapes blue and the box shapes red.

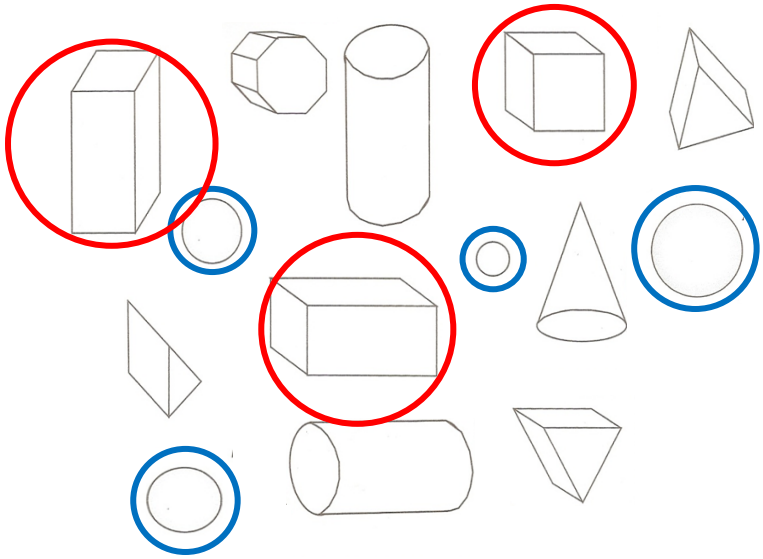


(_)

Memo a.



b.



3.2(2) *Teacher: Give learners an assortment of 3D objects.*
Sort the objects into two boxes:

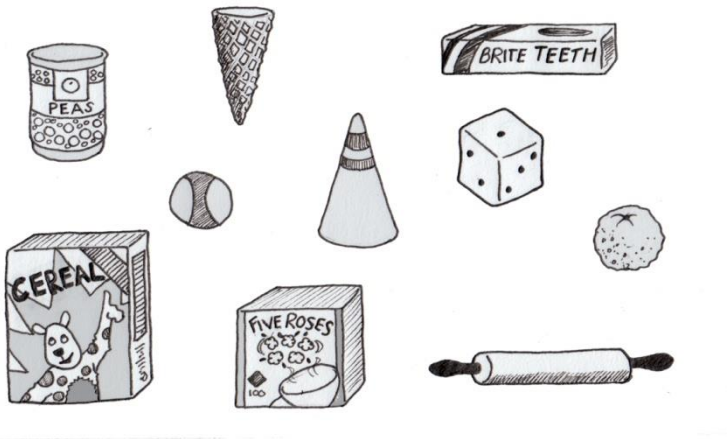
- Box 1: objects with flat faces.
- Box 2: objects with curved faces. (_)

Memo **Accept responses according to the assortment of objects.**

3.2(3) a. *Teacher: Give learners an assortment of 3D objects.*
Sort the objects into ball, box and cylinder shapes. (_)

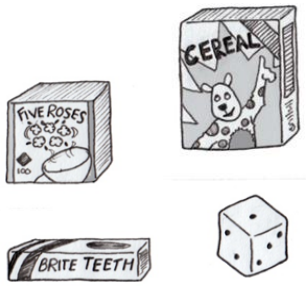
	b. *Teacher: Put the 3D objects into a bag. Let the learners feel in the bag for the items.* *e.g.* Find the thing in the bag that is round but small. Find the thing in the bag that feels like a long cylinder etc.	(_)
Memo	a. **Accept responses according to the assortment of objects.** b. **Accept responses according to the assortment of objects.**	
3.2(4)	a. *Teacher: Give learners an assortment of 3D objects which can slide or roll e.g. toilet roll, yogurt container, an orange, milk bottle, margarine container etc.* Sort the objects into 2 groups: those that can roll and those that can slide.	(_)
Memo	a. **Accept responses according to the assortment of objects.**	
	b. Look at the 3D objects below. Sort them into those that can roll and those that can glide.	

ROLL	SLIDE



Memo b.

ROLL



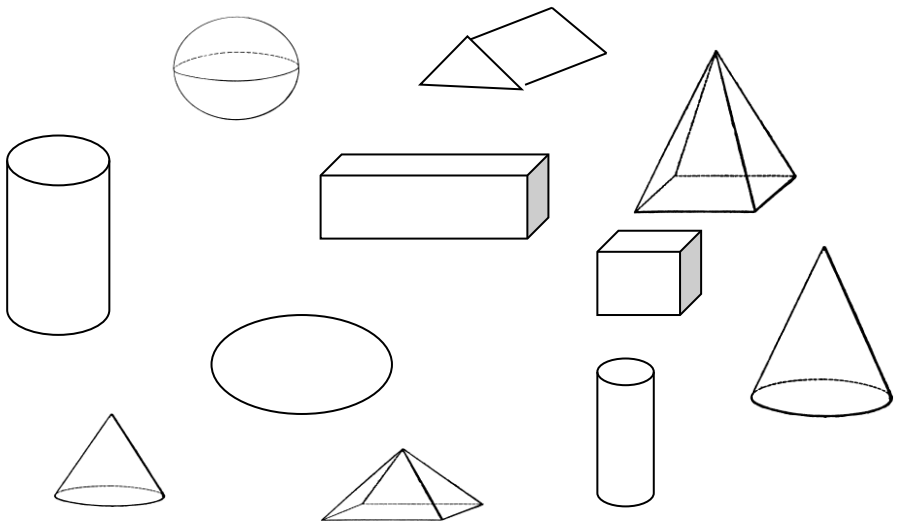
SLIDE

3.2(5) a. *Teacher: Show learners 3D objects e.g. box shape, prism and pyramid.*
Using straws, toothpicks and Prestik, build a box-shaped prism and a pyramid. (_)

b. *Teacher: Give learners play dough. Show learners the 3D objects e.g. cylinder, ball and cone.*
Use the play dough to form a ball, a cylinder and a cone. (_)

Memo a and b: **Accept any reasonable structure.**

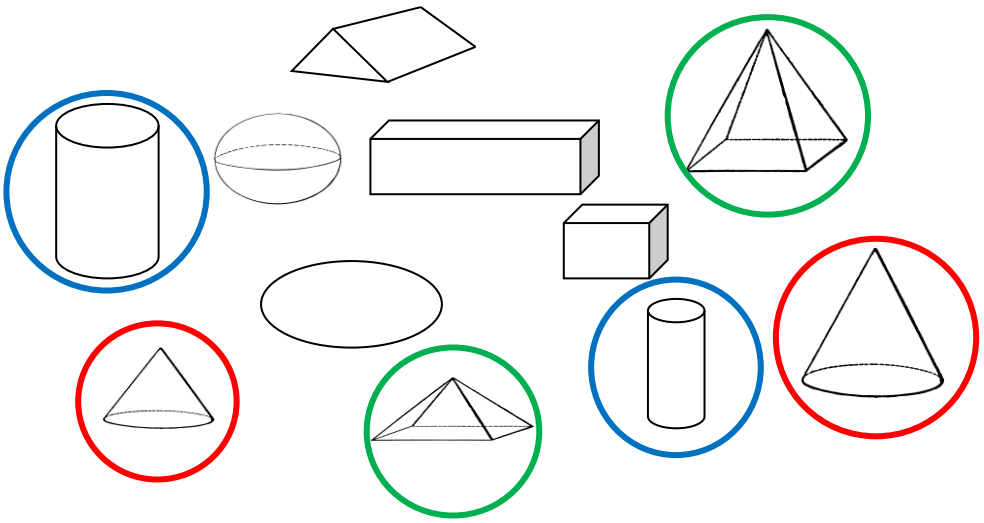
c. Look at the following objects.



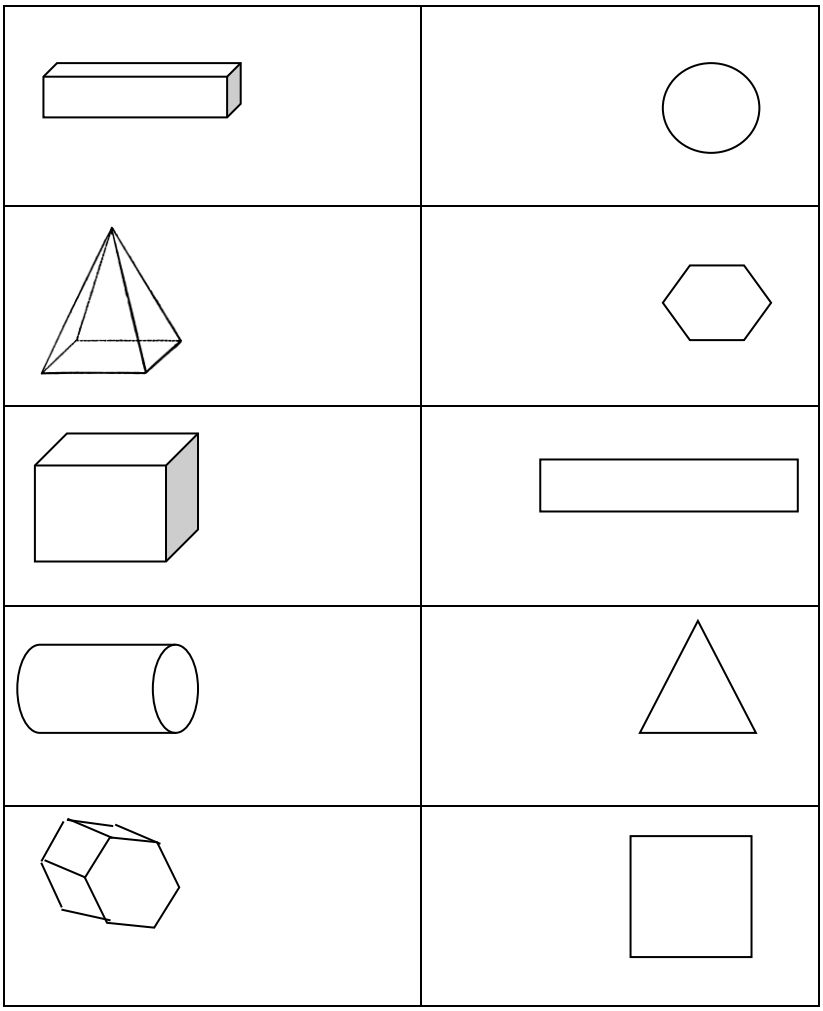
- Circle the cones in red.
- Circle the cylinders in blue.
- Circle the pyramids in green.

(_)

Memo c.

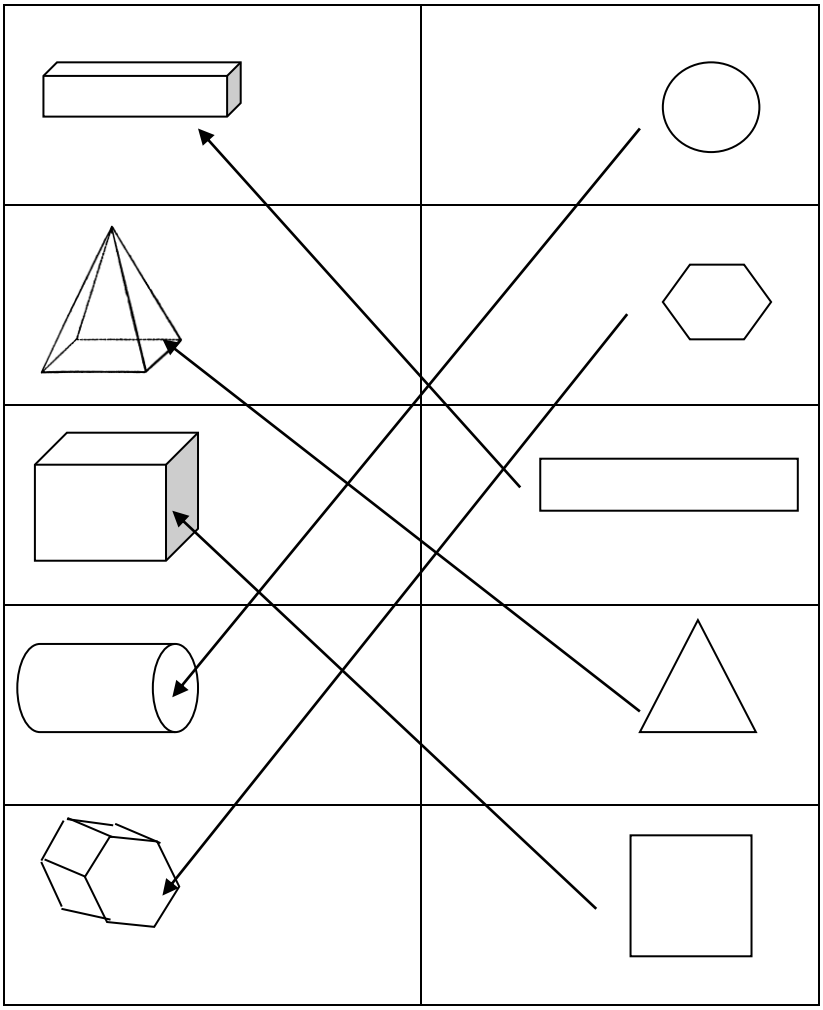


3.2(6) Match the 2D shapes with the faces of the 3D objects. Draw lines from the 2D shape to the 3D object.



(_)

Memo



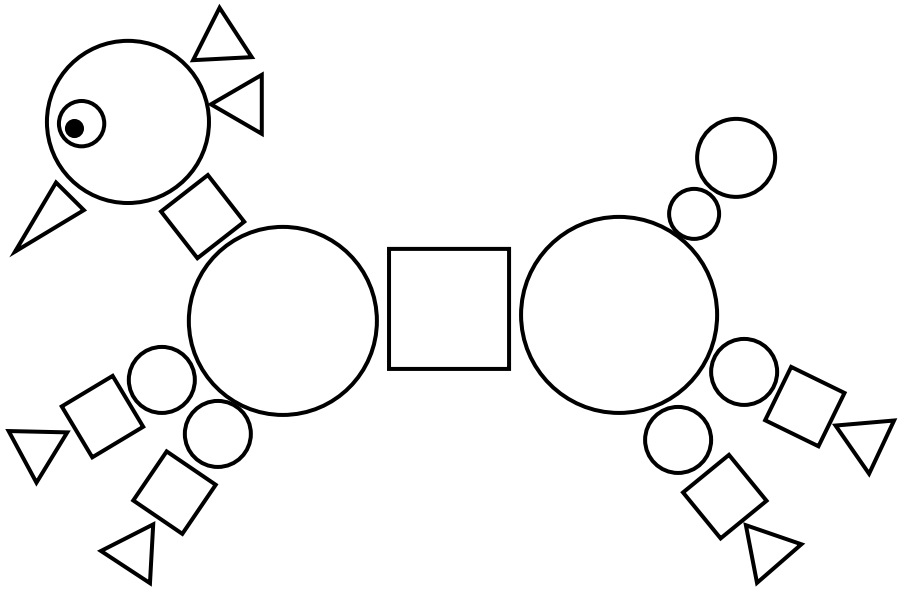
3.3 Space and shape (Geometry): 2D shapes

3.3(1) a. *Teacher: Give learners 2D shapes on the mat.*
Sort the shapes into squares, triangles and circles. (_)

Memo **Accept responses according to the assortment of shapes.**

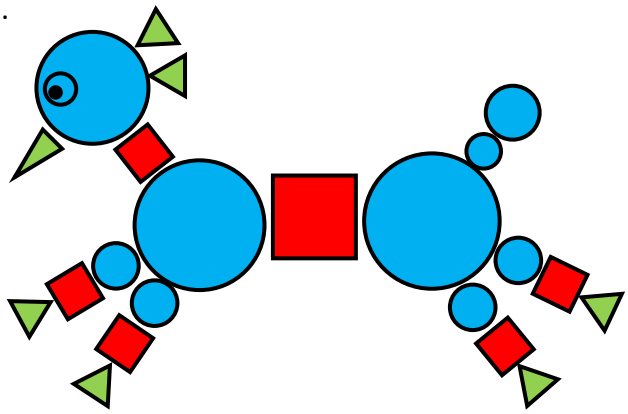
b. For the picture below:

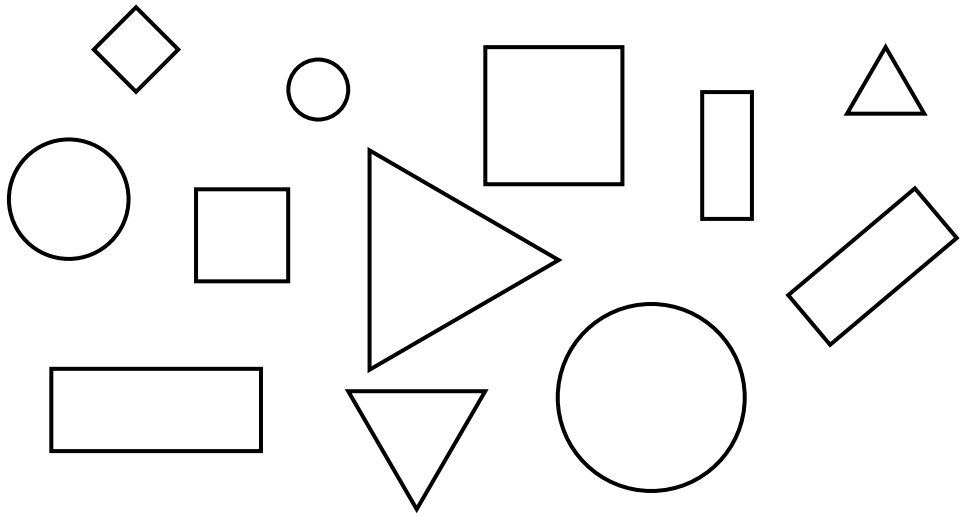
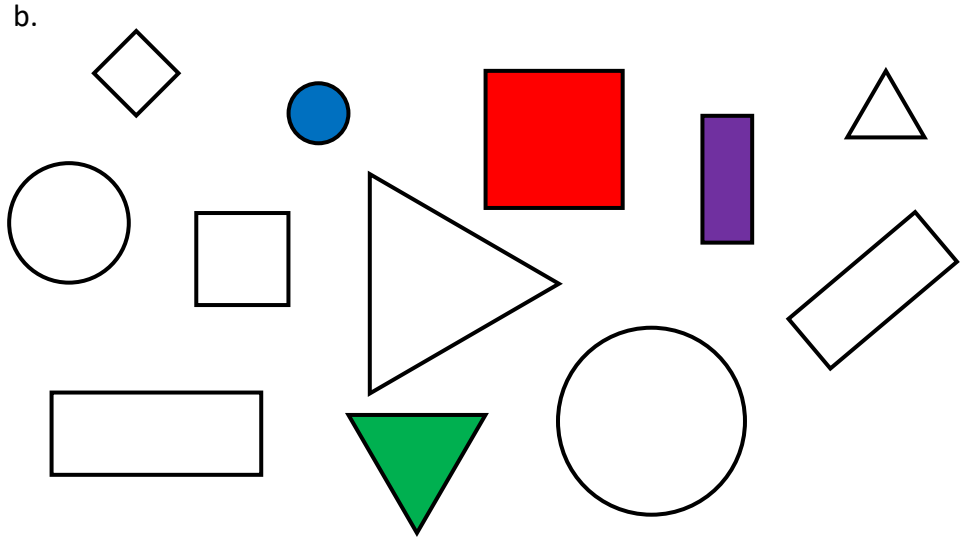
- Colour the circles in blue.
- Colour the triangles in green.
- Colour the squares in red.



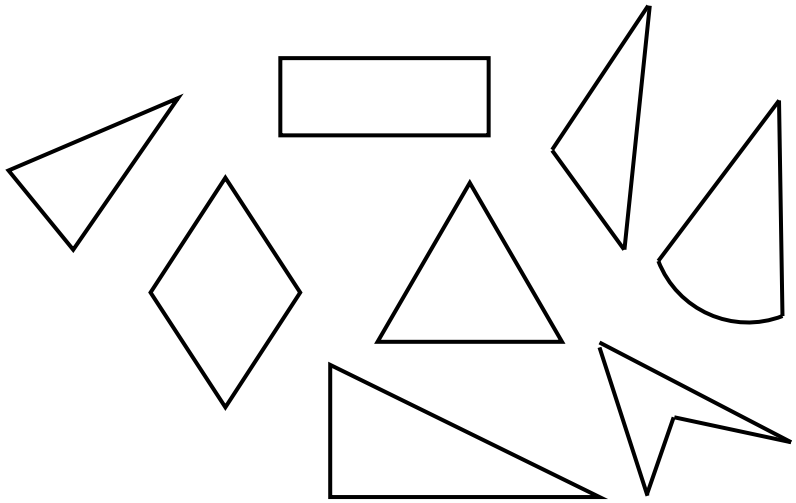
(_)

Memo b.



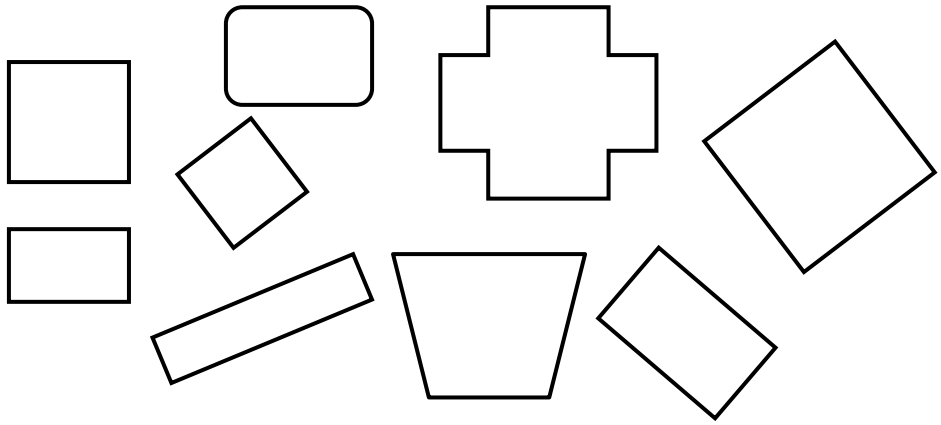
3.3(2)	a.	*Teacher: Put shapes into a bag. Get learners to feel and find items. e.g.* • The smallest square shape in the bag • The biggest triangle in the bag • The middle sized circle in the bag, etc. (_)
Memo	**Accept responses according to the assortment of shapes.**	
	b.	Look at the shapes below:  • Colour the smallest circle in blue. • Colour the largest square in red. • Colour the middle-sized triangle in green. • Colour the smallest rectangle in purple. (_)
Memo	b.	

3.3(3) a. Colour the shapes in green that are not triangles.



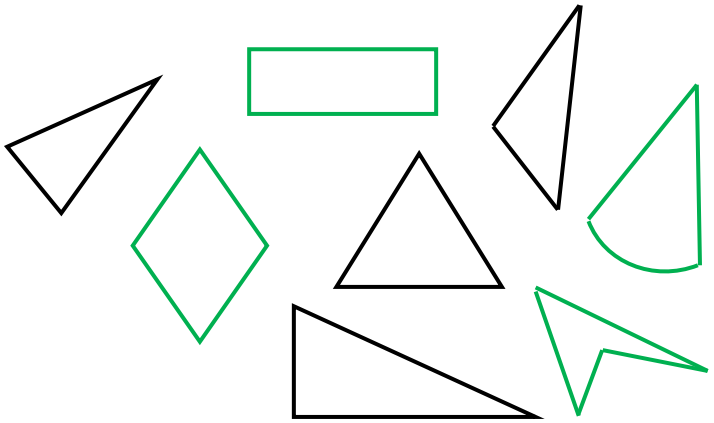
(_)

b. Draw a circle around all the rectangles and a cross on the squares.

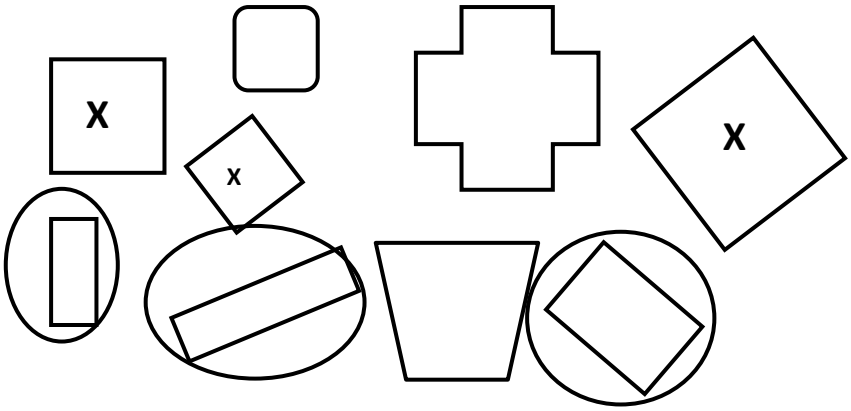


(_)

Memo a.



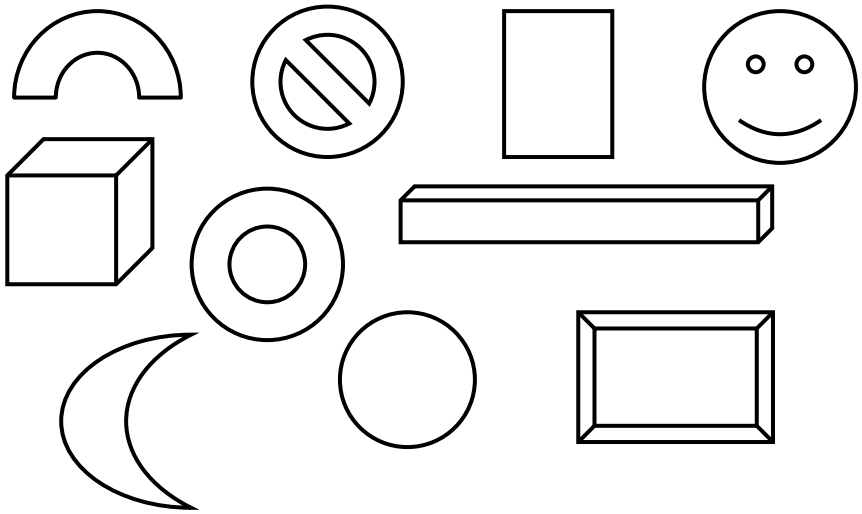
b.



3.3(4) *Teacher: Collect string, matches, play dough, geoboard/elastic bands and get learners to build shapes.*
Use what the teacher gives you to build: a circle, a triangle, a square, and a rectangle. (_)

Memo **Accept shapes according to the assortment of items.**

3.3(5) Look at the diagram below.



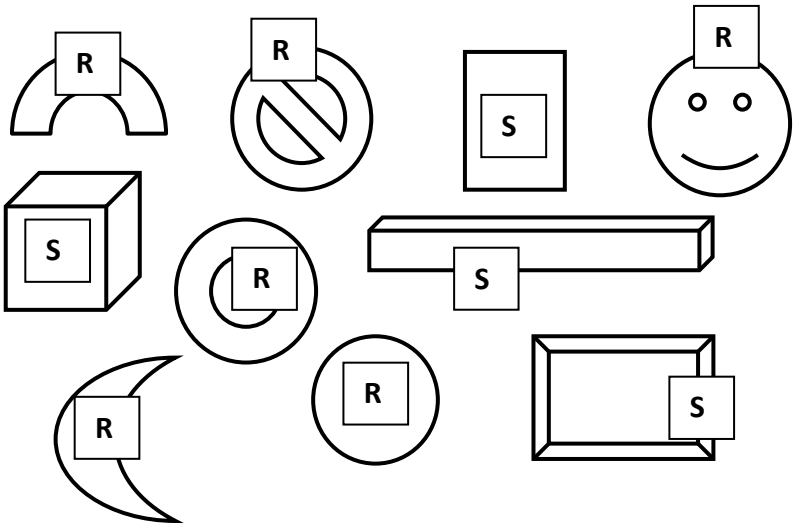
a. Put an 'R' in all the objects with round edges. (_)

b. Put an 'S' in all the objects with straight sides. (_)

c. Write down the names of 2 things in your class which have round edges. (_)

d. Write down the names of 2 things in your class which have straight edges. (_)

Memo

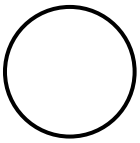
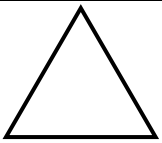
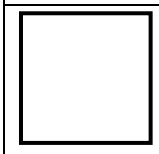


Memo c and d: **Accept responses according to the items in your class.**

3.3(6)

a. Use squares, triangles, rectangles and circles to draw a garden or a house or a car. Write the name of each shape in your drawing. (_)

b. Write down the name of each shape below. Include a brief description.

	Circle	Circles have round edges with no points.
		
		
		

(_)

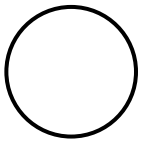
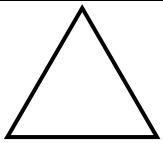
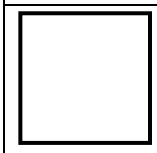
c. Draw 2 examples for each shape. Let each shape be different in size or position.

Circles	
Squares	
Triangles	
Rectangles	

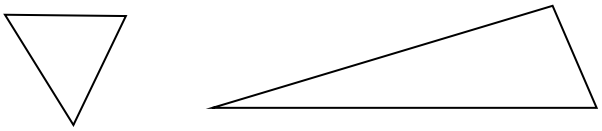
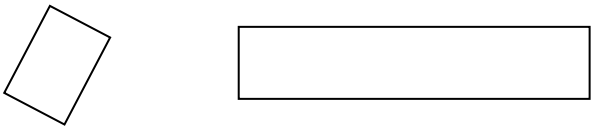
(_)

Memo a. **Accept drawings according to the assortment of shapes.**

b.

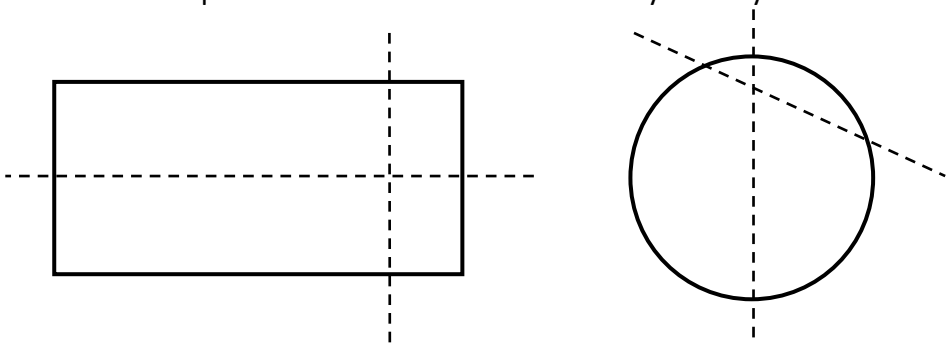
	**Circle**	**Circles have round edges with no points.**
	**Triangle**	**Triangles have 3 straight sides with 3 points.**
	**Square**	**Squares have 4 straight sides, all equal in length.**
	**Rectangle**	**Rectangles have 4 straight sides with 2 long sides that are equal and 2 short sides that are equal in length.**

Memo c.

Circles	
Squares	
Triangles	
Rectangles	

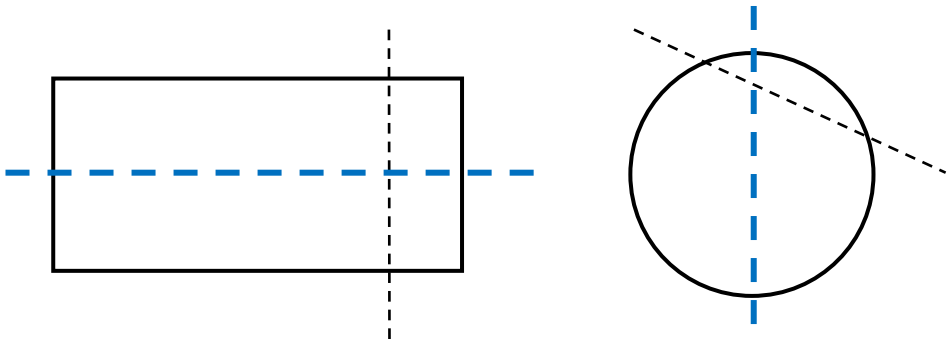
3.4 Space and shape (Geometry): symmetry

3.4(1) Look at the shapes. Which line shows the line of symmetry? Colour it blue.

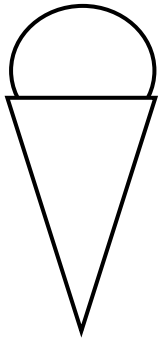


(_)

Memo

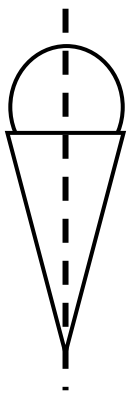


3.4(2) Draw in the line of symmetry.

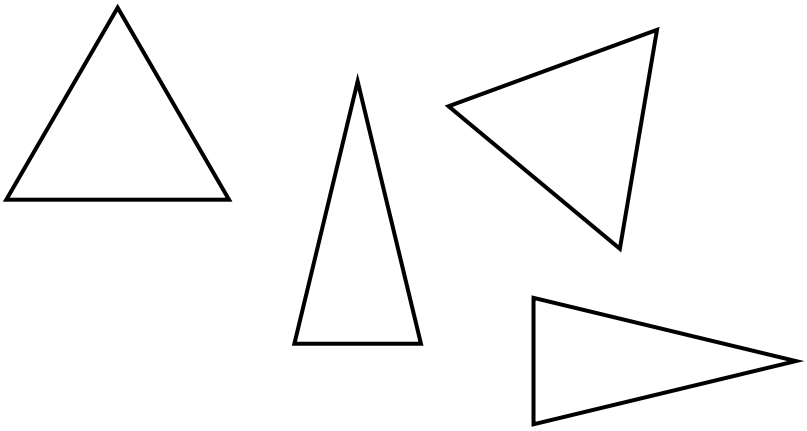


(_)

Memo

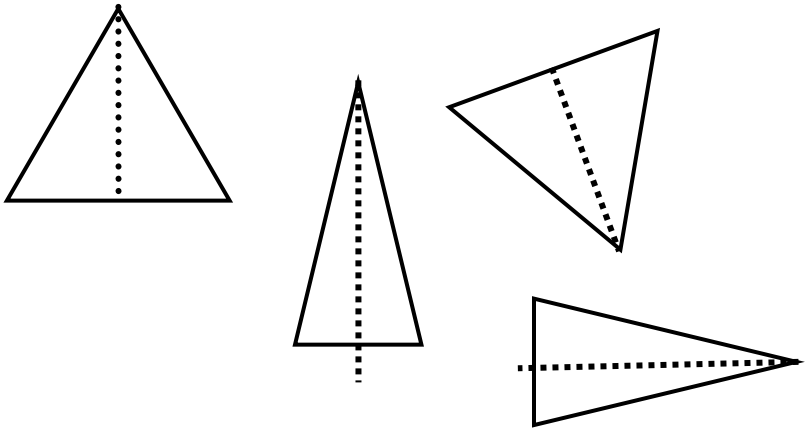


3.4(3) Draw the line of symmetry in these triangles.

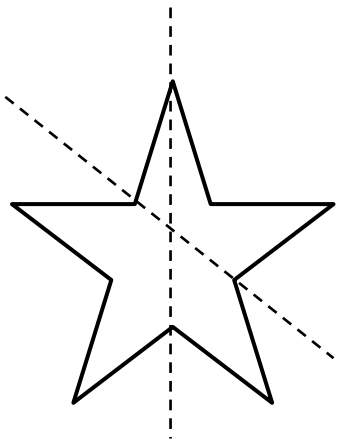


(_)

Memo

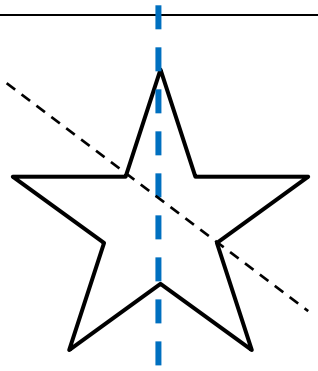


3.4(4) Which is the line of symmetry? Colour it blue.

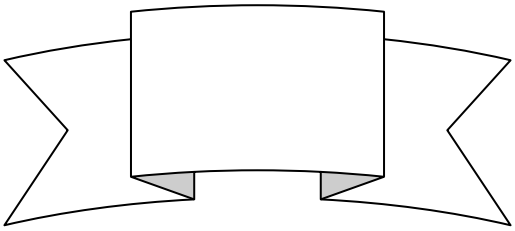


(_)

Memo

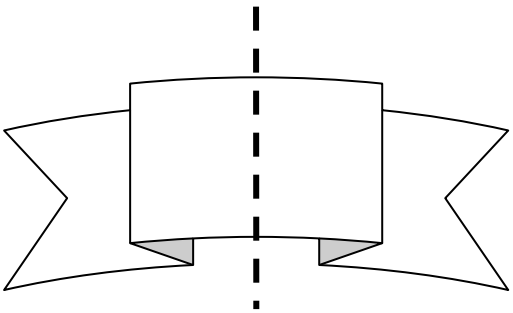


3.4(5) Draw the line of symmetry.

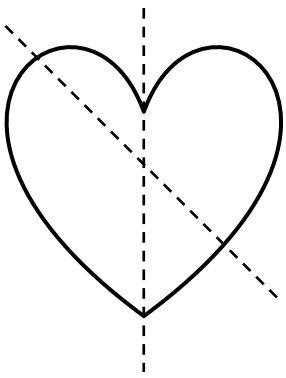


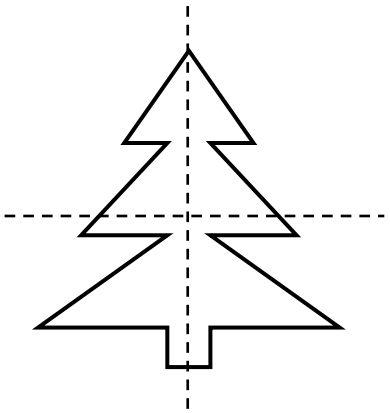
(_)

Memo



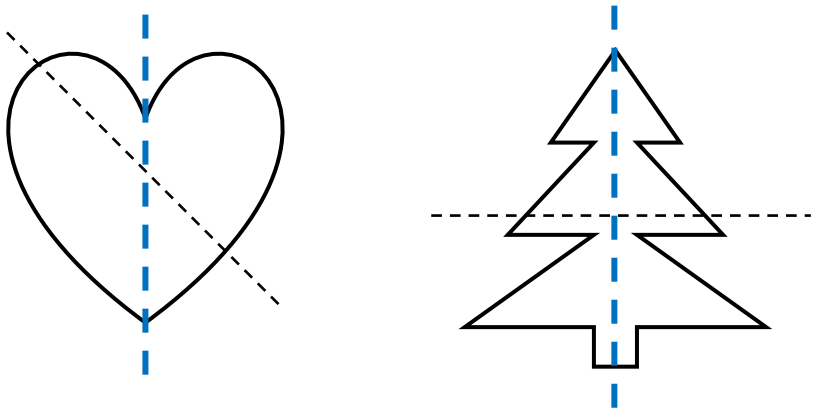
3.4(6) Which is the line of symmetry? Colour it blue.



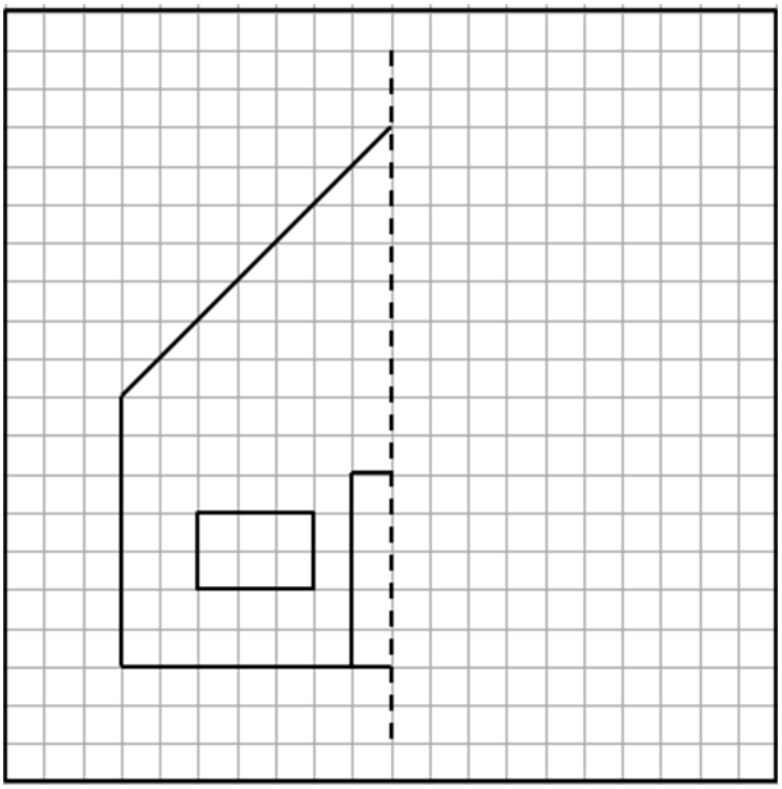


(_)

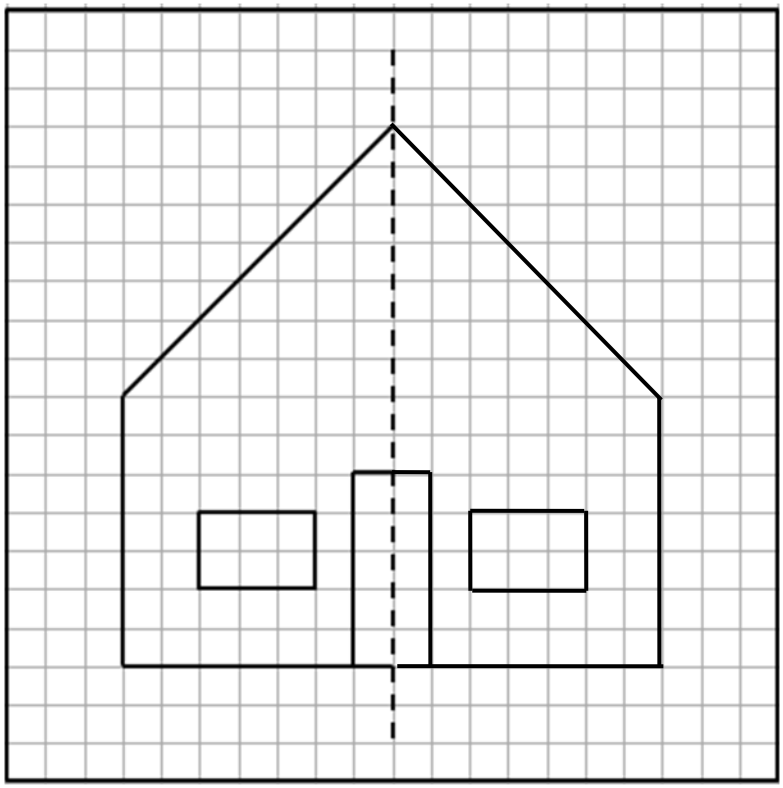
Memo



3.4(6) Draw the other half of this picture. Make both sides look alike.



Memo



(_)

Measurement

4.1 Measurement: time

4.1(1)

a. Fill in 'late' or 'early'.

- If you wake up before the sun has risen, you wake up _____
- If you wake up after your friends are at school, you wake up _____
- If you arrive at school after the bell has rung, you are _____
- If you arrive at school long before the bell rings, you are _____ (_)

b. Say if the following happens in the 'afternoon', 'morning' or 'evening'.

- What time of the day is it when the sun rises?
- What time of the day is it when school closes?
- What time of the day is it when you eat breakfast?
- What time of the day is it when you go to bed? (_)

c. Say which of the following takes a 'shorter' or 'longer' time.

- Taking a bath or brushing your teeth.
- Eating breakfast or sleeping at night.
- A weekend or a school week. (_)

Memo

a.

- If you wake up before the sun has risen, you wake up **early.**
- If you wake up after your friends are at school, you wake up **late.**
- If you arrive at school after the bell has rung, you are **late.**
- If you arrive at school long before the bell rings, you are **early.**

b.

- What time of the day is it when the sun rises? **morning**
- What time of the day is it when school closes? **afternoon**
- What time of the day is it when you eat breakfast? **morning**
- What time of the day is it when you go to bed? **Evening**

c.

- Taking a bath **(longer)** or brushing your teeth **(shorter).**
- Eating breakfast **(shorter)** or sleeping at night **(longer).**
- A weekend **(shorter)** or a school week **(longer).**

4.1(2)

a. Here are the months of the year. Write them in the correct order.
March, December, January, October, June April, July, November, February May, August, September (_)

	b. Look at a calendar. • How many days are there in July? • How many days are there in one week? • If Lorna's birthday is in the fourth month of the year. What is the name of the month? • Sipho's birthday is two months after Lorna's birthday. What month is his birthday? (_) c. List the days of the week in the correct order. Start with Monday. (_)
	d. *Teacher: Use the calendar in the classroom. Let the learners put a ring around their birth dates.* (_)
	e. *Teacher: Ask other questions, e.g. How many days between Jabu's and Ben's birthdays? etc.* (_)
Memo	a. **January, February, March, April, May, June, July, August, September, October, November, December.** b. • **There are 31 days in July.** • **There are 7 days in one week.** • **The fourth month of the year is April.** • **Sipho's birthday is in June.** c. **Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday** d and e**: Accept responses according to the teacher's questions.**
4.1(3)	a. Look at a calendar. • John's birthday is on 5 August. Mary's birthday is two weeks later. What date is Mary's birthday? • John's birthday is on 5 August. Sibongile's birthday is 1 month and 4 days later. What is the date of Sibongile's birthday? • My birthday is on 15 June and my friend's is on 23 November. Whose birthday is first? (_)

b. *Teacher: Give learners a calendar for December and January.*
Look at the calendars.

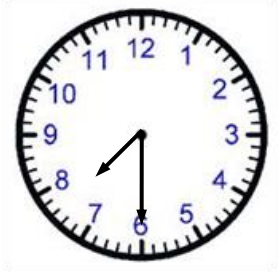
- Circle the Day of Reconciliation on the calendar.
- Circle the Day of Goodwill on the calendar.
- How many days are there between the Day of Reconciliation and the Day of Goodwill?
- Circle New Year's Day.
- How many days are there between the Day of Goodwill and New Year's Day? (_)

c. In the column next to the clocks, write in what you did yesterday at that time.

Time	What I did yesterday at this time.
 7:00 am	
 8:30 am	
 1:00 pm	
 4:30 pm	
 6:45 pm	
 9:00 pm	

(_)

d. Write the time under each clock. Write or draw what you do at these times.

	Drawing
Morning  _____	
Morning  _____	
Afternoon  _____	
Afternoon  _____	

(_)

Memo a.

- **Mary's birthday is on the 19th August.**
- **Sibongile's birthday is on the 9th September.**
- **15th June is first.**

b.

- **There are 9 days between the Day of Reconciliation (16 Dec) and Day of Goodwill (26 Dec).**
- **There are 5 days between the Day of Goodwill and New Year's Day.**

c and d: **Accept any reasonable responses from learners.**

	Drawing
Morning  **7:00 am**	*
Morning  **8:15 am**	
Afternoon  **2:45 pm**	
Afternoon  **7:30 pm**	

4.1(4)	a. On Sunday evening, Mary watches television for 2 and a half hours. She starts at 4 o'clock. When does she stop?	(_)
	b. The programme on TV starts at 3 o'clock and ends at half past three. How long is the programme?	(_)
	c. Look at the calendar. • How many days are there in July? • How many full weeks are there in July? • How many Fridays are there in July? • Does June have the same number of days as July? • Which month has the shortest number of days? • The electricity went off on 5 July and came on again 5 days later. What date did the electricity come on again?	(_)
Memo	a. **6:30pm** b. **Half an hour/ 30 minutes** c. • **There are 31 days in July.** • **There are 4 full weeks in July.** • **There are 4 Fridays in July.** • **No, June does not have the same number of days as July.** • **February has the shortest number of days.** • **The electricity came on again on 10th July.**	

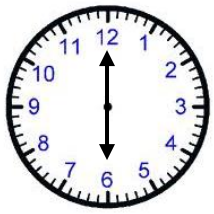
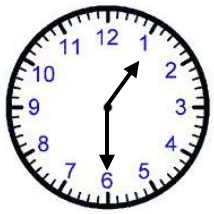
4.1(5) a. Look at the following clocks. Write in words the time shown on the clock.

Morning 	
Morning 	
Afternoon 	
Afternoon 	
Afternoon 	
Afternoon 	

(_)

b. Look at a calendar.
   - How many weeks are there between September and November?
   - How many days are there between September and November? (_)

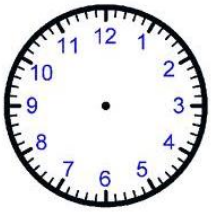
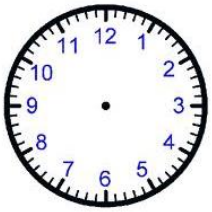
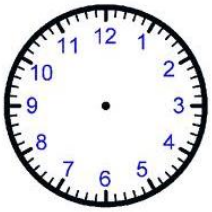
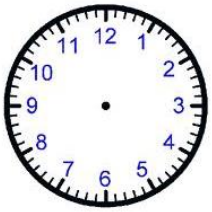
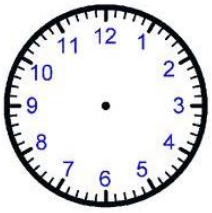
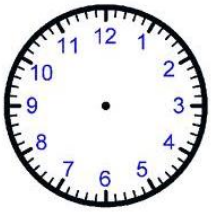
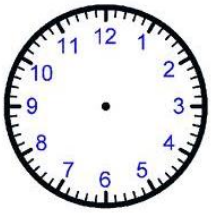
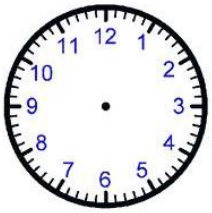
Memo a.

Morning 	**Six o'clock in the morning**
Morning 	**Half past six/ Thirty minutes past six in the morning**
Afternoon 	**Five minutes past six in the afternoon**
Afternoon 	**Quarter to four/ fifteen minutes to four in the afternoon**
Afternoon 	**Half past four/ Thirty minutes past four in the afternoon**
Afternoon 	**Twenty-five minutes past two in the afternoon**

b.

- **About 4 weeks between September and November**
- **31 days between September and November**

4.1(6) a. Fill in the 'Starting Time' and 'Finishing Time' on the clocks for something you do every day. Work out how long you spent doing it.

Things I do.	**Starting time**	**Finishing time**
How long it took:_____		
How long it took:_____		
How long it took:_____		
How long it took:_____		

(_)

b. Match the time on the clocks to the time on the right. Rule lines to show.

06:45

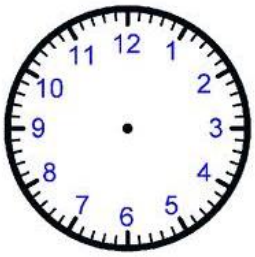
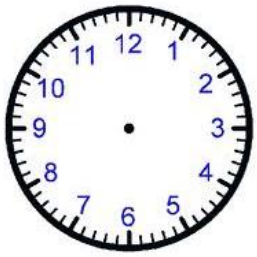
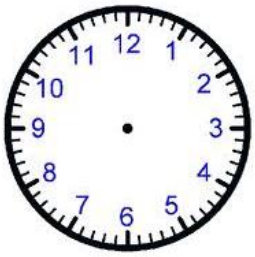
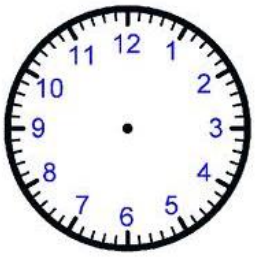
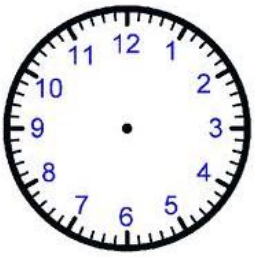
09:15

15:30

16:00

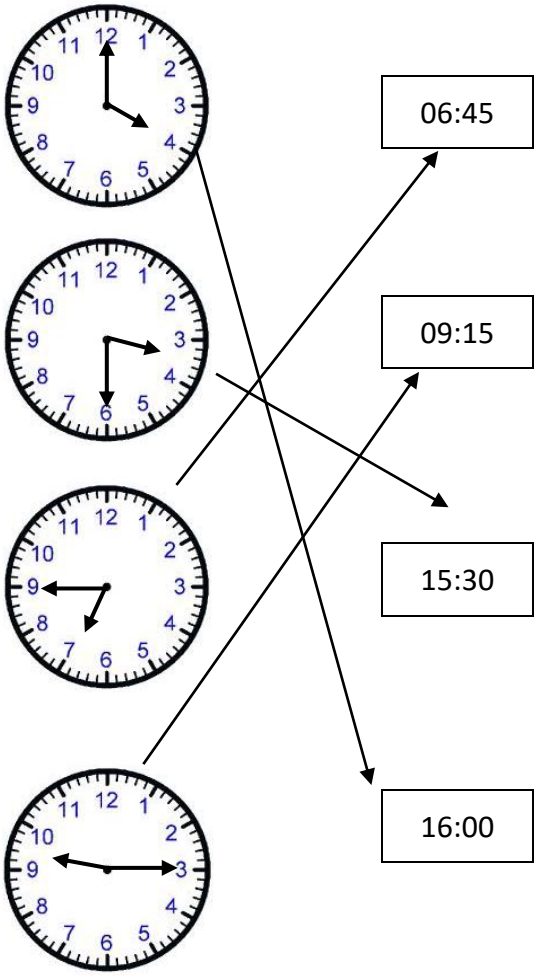
_____ (_)

c. Fill in the hands of the clocks for the following times.
Three o'clock, half past six, quarter past ten, quarter to eleven, half past four.

 Three o'clock	 Half past six	 Quarter past ten	
 Quarter to eleven	 Half past four		(_)

Memo a. **Accept any reasonable responses from learners.**

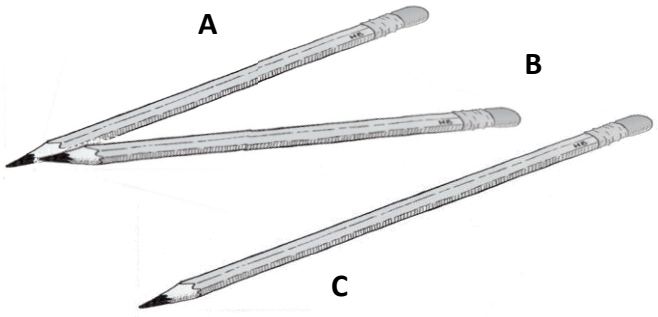
b.



c.

Three o'clock	**Half past six**	**Quarter past ten**
Quarter to eleven	**Half past four**	

4.2 Measurement: length

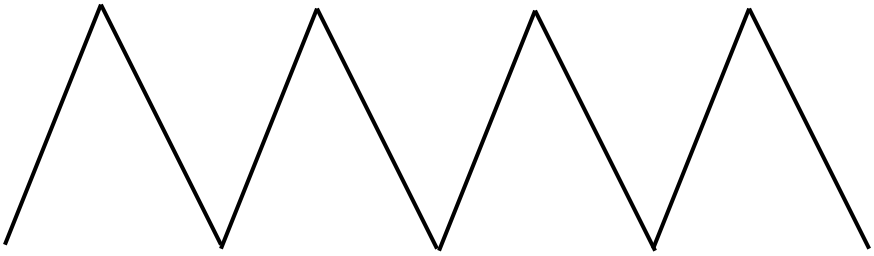
4.2(1)	a.	*Teacher: Get 2 learners to stand back to back. Ask a group on the mat questions e.g. Who is taller? Who is shorter?*	(_)
	b.	*Teacher: Show learners pictures of objects, animals or insects. Ask questions.* Which is taller? Which is shorter? Which is longer? Which is wider? etc.	(_)
Memo	a and b: **Accept responses according to the teacher's questions.**		
4.2(2)	a.	*Teacher: Give the group on the mat pieces of string, cut at different lengths.* Use your hand width to measure how long the pieces of string are.	(_)
	b.	*Teacher: Identify 2 routes in the playground e.g. from the classroom to the toilet and from the classroom to a tree. The distances must be difficult to judge without measuring. Put learners in groups.* You must make a plan to measure the distance from the classroom to the toilet and from the classroom to the tree. You must tell me which one is the longer route.	(_)
	c.	*Teacher: Work with a group on the mat to measure objects.* You must measure, using your fingers or hand, and tell me which is longer …… or ……	(_)
Memo	a, b and c: **Accept responses according to the teacher's selection.**		
4.2(3)	a.	You may not use a ruler to measure with. Which one is the longest pencil? Write down how you did this.  	(_)

b. Make a plan to work out which string is longer. You cannot use a ruler.

(_)

Memo a. **Pencil C is the longest. (Learners can use string.)**
b. **B is the longer string. (Learners can use string.)**

4.2(4) a. *Teacher: Give each learner a piece of string approximately 30 cm long.*
Use the piece of string to measure the length of this line.



(_)

b. Use a metre stick or tape measure and complete the table below.

Measure	Estimate	Actual measurement in metres	Order shortest to longest
Width of classroom			
Length of classroom			
Height of window			
Height of door			
Width of door			
Length of board			
etc			

(_)

Memo a**. The string is about 28 cm long.**

b**. Accept responses according to the selection of items in the classroom.**

4.2(5) a. Use a metre stick or tape measure and complete the table below.

Distance	Estimate	Actual measurement in metres	Order closest to furthest
Distance to the playground			
Width of netball field			
Length of netball field			
Distance to the principal's office			
Distance to the library			
Distance to the gate			
etc			

(_)

b. Estimate the length of a carrot. Underline your choice.

2 metres 12 grams 12 centimetres 20 millimetres (_)

Memo a. **Accept responses according to the distances selected in your school.**
b. 2 metres 12 grams **12 centimetres** 20 millimetres

4.2(6) a. Use a ruler and complete the table below.

Object	Estimate	Actual measurement in cm	Order shortest to longest
Width of textbook			
Length of textbook			
Width of desk			
Length of pencil			
Length of chalk			
Width of chair			
etc			

(_)

b. Would you measure the following items in metres or centimetres?

- Pencil sharpener
- Length of a bed
- Envelope
- Magazine
- Length of a car
- Material for a dress etc. (_)

Memo a. **Accept responses according to the teacher's selection of the items in her classroom.**

b.

- Pencil sharpener: **in centimetres**
- Length of a bed: **in metres**
- Envelope: **in centimetres**
- Magazine: **in centimetres**
- Length of a car: **in metres**
- Material for a dress: **in metres**

4.3 Measurement: mass

4.3(1)

a. *Teacher: Use a wire hanger to hang objects on either end of the hanger. Ask questions as indicated by the examples below.*

- Which is heavier the ball or the block?
- Which is heavier the pencil or the eraser?
- Which is lighter the bottle or the plastic container? (_)

b. *Teacher: Bring into class a number of household objects e.g. packet of sugar, packet of flour, tin of jam, margarine etc. Learners sit in groups on the mat.*
Lift the objects and say which is the heaviest and which is the lightest. (_)

Memo a and b: **Accept responses according to the teacher's selection of items.**

4.3(2) *Teacher: Use the wire hanger and attach plastic cups to both ends of the hanger. Collect a number of pebbles or marbles. Put 3-5 marbles in the one cup. In the other cup place different objects- one at a time e.g. a spoon of flour, spoon of sugar et*

Item	Which is heavier the marbles or the item?
Spoonful of flour	
Spoonful of sugar	
Spoonful of beans	
Piece of chalk	
Pencil	
Eraser	
etc	

(_)

Memo **Accept responses according to the teacher's selection of items.**

4.3(3)	Look at the pictures of the following objects. Write numbers below the object to order the objects from lightest (1) to heaviest (5).  (_)
Memo	**Lightest to heaviest** **1. chocolates** **2. Five Roses** **3. peas** **4. lunch** **5. sugar**  **2 3 1 5 4**

4.3(4) *Teacher: Black out the mass on the packets. Collect packets of grocery items over 1kg.*

Use a kitchen scale to find the mass of the following objects.

Objects	Estimate	Actual mass in kilograms	Order lightest to heaviest
Packet of sugar			
Packet of beans			
Packet of cat food			
Packet of dog food			
Packet of apples			
Packet of potatoes			
etc			

(_)

Memo **Accept responses according to the teacher's selection of items.**

4.3(5) a. *Teacher: collect empty cereal boxes, soap boxes and biscuit packets etc.*

Look on the box and read the mass of the box when it was full. Order the boxes from lightest to heaviest.

Box	Mass

(_)

b. *Teacher: Bring to class a number of grocery items with a mass less than 1 kg.*
Use a kitchen scale to estimate and measure the mass of the following items and order them from the heaviest to the lightest.

Item	Estimate	Actual mass in grams	Order heaviest to lightest
Apple			
Packet of sweets			
Packet of biscuits			
Potato			
Carrot			
Cabbage			
etc			

(_)

c. Estimate the mass of an apple. Underline your choice.
150 grams 150 kilograms 15 kilograms 15 metres (_)

Memo a and b: **Accept responses according to the teacher's selection of items.**

c. **<u>150 grams</u>** 150 kilograms 15 kilograms 15 metres

4.3(6) a. *Teacher: Collect a list of items for measuring grams and kilograms as suggested below.*
Would you measure their mass in kilograms or grams?

- Bag of potatoes
- Two carrots
- One apple
- A jar of jam
- A tin of baked beans
- A tin of coffee
- A packet of tea

(_)

b. *Teacher: Fill plastic packets with 250g of sand, 500g of sand and 1kg of sand. Collect a number of items within this mass range. The learners must hold the item in their left hand and then balance it with one of the plastic packets of sand to get the items approximate mass.*

Item	Mass (250g, 500g, 1kg)
Packet of sugar	
4 potatoes	
etc	

(_)

Memo a and b: **Accept responses according to the teacher's selection of items.**

4.4 Measurement: capacity/ volume

4.4(1) *Teacher: Collect a number of different containers and pour in different amounts of water. Learners work in groups on the mat or outside.*

- Which container is half full?
- Which container is empty?
- Which container is full?
- Which container is nearly full?
- Which container is less than half?
- Which container is more than half?
- Which container only has a small amount of water?
- Which container has the most amount of water?
- Which container has the least amount of water? (_)

Memo **Accept responses according to the amount of water poured into the various containers.**

4.4(2) *Teacher: Collect plastic bottles and cups.*
Measure how many cups of water or sand will fill the bottles/containers.

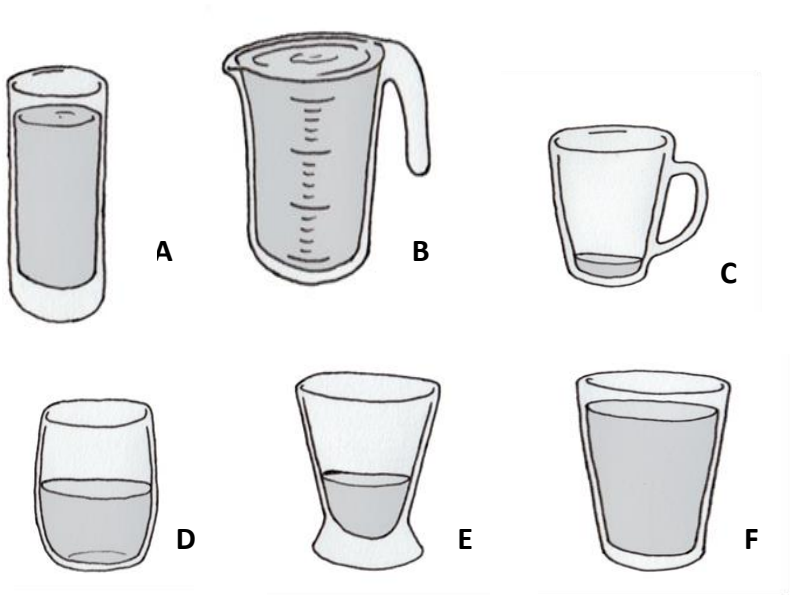
Plastic bottles	Number of cups to fill the container
500 mℓ cooldrink bottle	
1 ℓ cooldrink bottle	
2 ℓ cooldrink bottle	
1 ℓ milk container	
1,5 ℓ milk container	
etc	

(_)

Memo **Accept responses according to the teacher's selection of items.**

4.4(2) a. Look at these containers. Use this list of words to describe the level of water in each.

Less than half ; half full ; nearly full ; full ; small amount of water



Container	Level	Container	Level
A		D	
B		E	
C		F	

(_)

b. Which container has the most water? (_)

c. Which container has the least amount of water? (_)

d. Which container is the biggest container? (_)

Memo a.

Container	Level	Container	Level
A	**nearly full**	D	**half full**
B	**full**	E	**Less than half**
C	**small amount of water**	F	**nearly full**

b. **Container B has the most water.**
c. **Container C has the least amount of water.**
d. **Container B is the biggest container.**

4.4(3) *Teacher: Have a container full of water or sand + large spoons. Collect empty containers similar to those suggested below.*
Estimate and then measure the capacity of the empty containers.
Order the containers from small to large in terms of volume.

Container	Estimate	Capacity in number of spoons	Order small to large in terms of capacity
Margarine container			
Match box			
Tuna can			
Jam tin			
Small yogurt container			
Small medicine bottle			
etc			

(_)

Memo **Accept responses according to the containers collected by the teacher.**

4.4(4) *Teacher: Collect a number of large empty containers as suggested below.*
Read what the capacity of the empty containers would have been when they were full. Number them 1-6 from the largest to the smallest capacity.

Container	Actual capacity in litres	Order large to small in terms of capacity
Milk container		
Paint tin		
Paraffin tin		
Cooldrink		
Oil tin		
etc		

(_)

Memo **Accept responses according to the containers collected by the teacher.**

4.4(5) a. *Teacher: Learners must have done this practically before it is given in this format.*
One mug of cooldrink = 250 mℓ
- How many mugs will you fill if you have 1 litre of cooldrink?
- How many mugs will you fill if you have 2 litres of cooldrink? (_)

b. One glass of cooldrink = 500 mℓ
- How many glasses will you fill with 1 litre of cooldrink?
- How many glasses will you fill with 3 litres of cooldrink? (_)

c. Estimate the capacity of a plastic cup. Underline your choice.
1 ℓ 250grams 250ml 500 mℓ (_)

Memo a.

- **4 mugs**
- **8 mugs**

b.

- **2 glasses**
- **6 glasses**

c.

1 ℓ 250grams **250ml** 500 mℓ

4.4(6)

250 mℓ 500 mℓ 1 litre $1\frac{1}{2}$ litres 5 litres

Look at the above containers. If you had 10 litres of juice, how many containers would you fill with juice in each case?

Container	Number of containers that would be filled with 10 litres of juice
250 mℓ container	
500 mℓ container	
1 ℓ container	
1,5 ℓ container	
5 ℓ container	
etc	

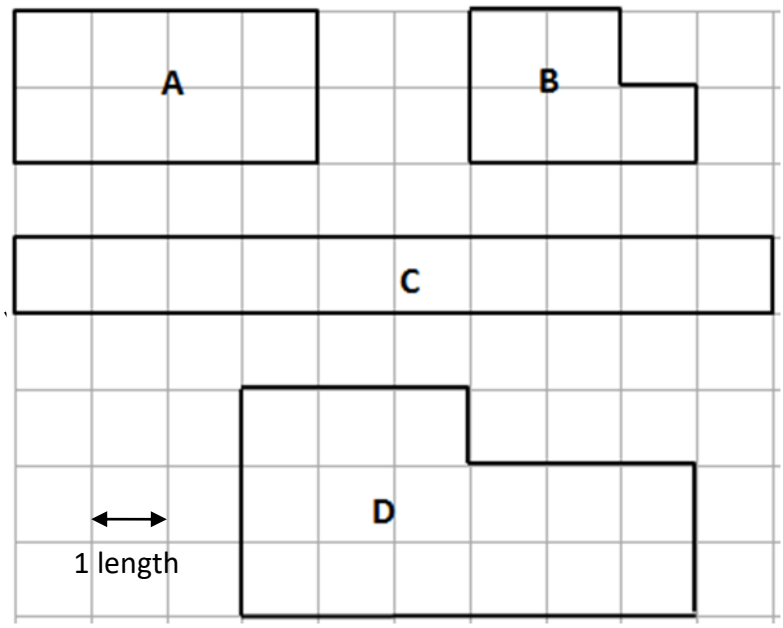
(_)

Memo

Container	Number of containers that would be filled with 10 litres of juice
250 mℓ container	**40 cups**
500 mℓ container	**20 mugs**
1 ℓ container	**10 pots**
1,5 ℓ container	**6 jugs**
5 ℓ container	**2 bottles**
etc	

4.5 Measurement: perimeter and area

4.5(1-3) Look at the picture below.



Each shape is a space for you to grow vegetables in. You need to put a fence around each shape.

a. How many lengths of fencing would you have buy to surround each shape?
- Fencing for A …….. lengths
- Fencing for B ……lengths
- Fencing for C…… lengths
- Fencing for D …….. lengths (_)

b. If area can be counted in blocks within the shapes:
- What is the area in A for growing vegetables? ……..blocks
- What is the area in B for growing vegetables? ……..blocks
- What is the area in C for growing vegetables? ……..blocks
- What is the area in D for growing vegetables? ……..blocks (_)

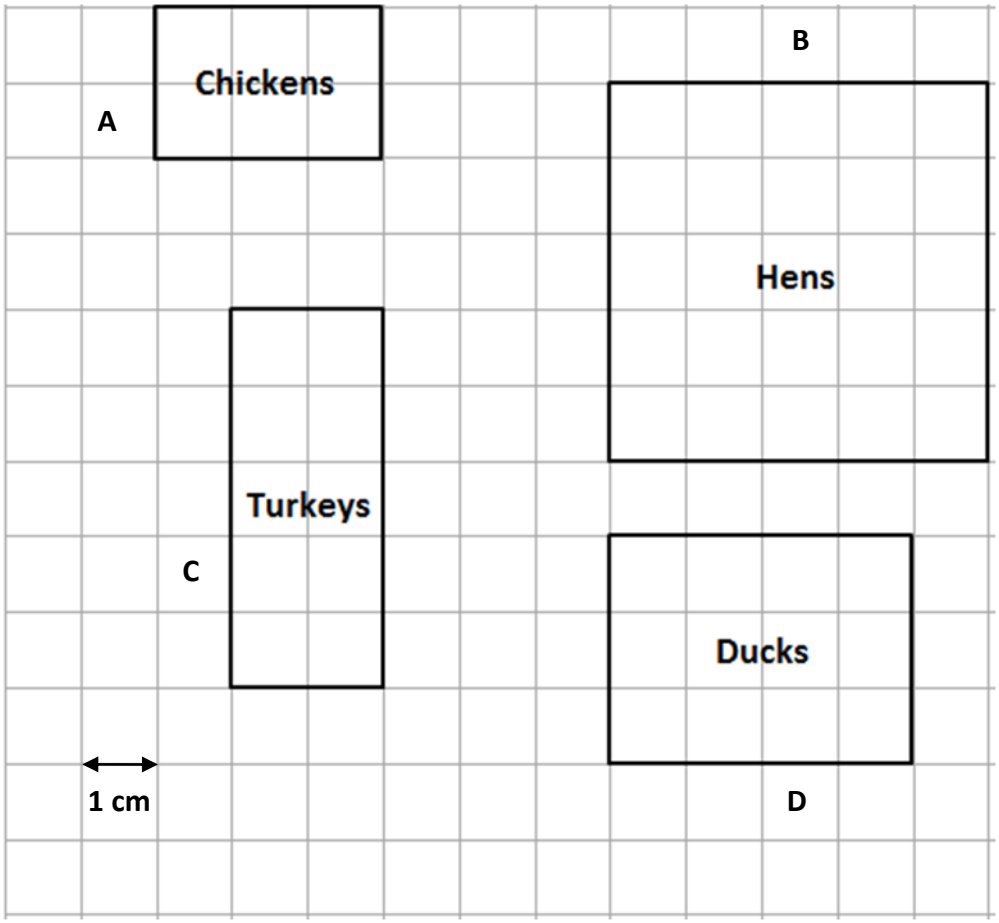
Memo a.

- Fencing for A: **12 lengths**
- Fencing for B: **10 lengths**
- Fencing for C: **22 lengths**
- Fencing for D: **18 lengths**

b.

- Area A: **8 blocks**
- Area B: **5 blocks**
- Area C: **10 blocks**
- Area D: **15 blocks**

4.5(1-3) Mr Mkize has built cages for his poultry. Look at the diagram representing the cages.



a. What is the perimeter of each cage? (_)

b. Which 2 cages have the same perimeter? (_)

c. Which cage has the smallest perimeter? (_)

d. How many times can the chicken cage fit into the duck cage? (_)

e. Which cage has the smallest area? (_)

	f. Which cage has the largest area?	(_)
Memo	a. **Chickens: 10 cm** **Turkeys: 14 cm** **Hens: 20 cm** **Ducks: 14 cm** b. Which 2 cages have the same perimeter? **Turkeys and Ducks** c. Which cage has the smallest perimeter? **Chickens** d. How many times can the chicken cage fit into the duck cage? **Twice** e. Which cage has the smallest area? **Chicken** f. Which cage has the largest area? **Hens**	

5 Data handling: grade 1

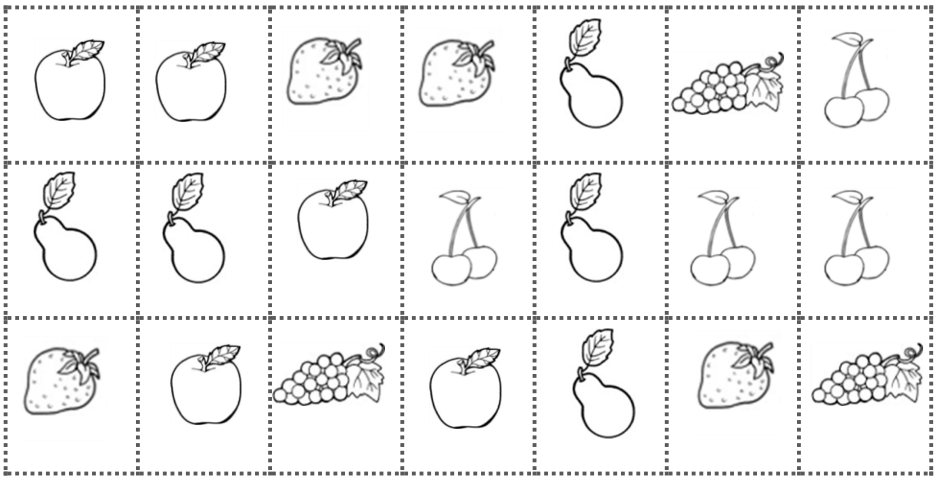
The progression of the levels follow similar steps linked to the Data Handling Cycle and can be described as follows:
Level 1 – Collecting and sorting everyday **objects** into simple groups
Level 2 - Explaining how the collection of **objects** was sorted
Level 3 - Discussing the need to represent the sorted **objects** in the form of drawings/ pictures
Level 4 - Preparing the key features for a pictograph
Level 5 - Representing data in a pictograph
Level 6 - Answering questions based on a pictograph

5.1-5.6(1-6) *Teacher: Learners work in groups of 4-5 to collect and sort different fruit from their homes. Teacher brings to class different fruits (or vegetables). Place on learners desks. Photostat copies of the fruit (or vegetables). Have more pictures than what the learners need. After sorting, the learners must work individually.*

a.
- Sort the fruit into groups.
- Why did you sort it like this? Tell your friend. (_)

b. You cannot paste the fruit into your book. How can you show that you have, e.g. an apple? (_)

c. *Teacher: Hand out Photostat copies of the fruit.*



Cut out the fruit you need and the amount you need. (_)

d. *Teacher: Hand out large blocked paper. It is important to have blocked paper so that learners get the idea that 1 block represents 1 object. (This is the beginning of the concept of scale.) If they just draw 3 bananas they will be the same size as 1 apple.*

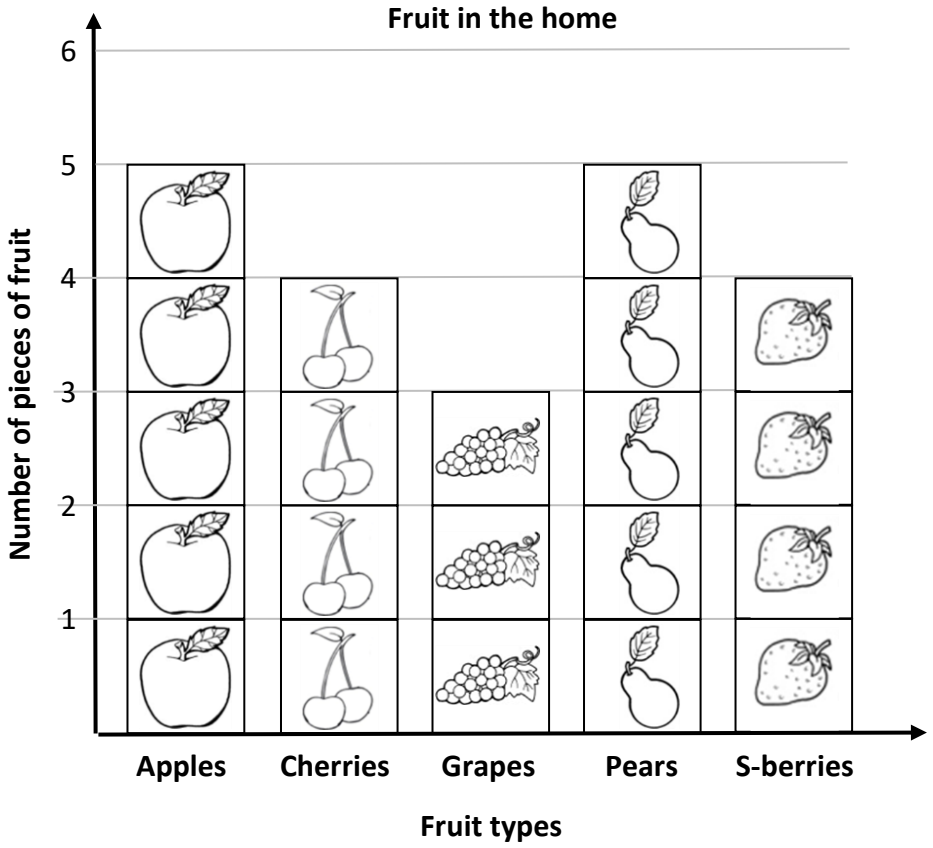
- Draw a horizontal and vertical line on your blocked paper.
- Place the different fruit in the correct blocks.
- Paste them in.
- Write down a heading.
- Label the horizontal and vertical lines. (_)

e. Answer the following questions.

- How many strawberries do you have?
- How many cherries do you have?
- Which fruit do you have the most of?
- Which fruit do you have the least of?
- Which fruit do you have the same amount of?
- If you had 4 more apples, how many apples would you have?
- If you had 2 less bunches of grapes, how many bunches would you have? (_)

Teacher: A learner from each group must show and explain to the whole class his/her pictograph and the answers to the questions.

Memo d.



e.

- **There are 4 strawberries.**
- **There are 4 cherries.**
- **The most fruit: pears and apples**
- **The least amount of fruit: grapes**
- **The same amount of fruit: cherries & strawberries(4); pears & apples (5)**
- **I would have 9 apples altogether.**
- **I would have 1 bunch of grapes.**

5 Data handling: grade 2

The progression of the levels follow similar steps linked to the Data Handling Cycle and can be described as follows:
Level 1 – Collecting and sorting data in order to answer a question
Level 2 - Explaining how the data was sorted in relation to the question
Level 3 - Organising the data in tallies
Level 4 - Representing the data in a pictograph
Level 5 - Answering questions based on a pictograph (e.g. How many cans were collected?)
Level 6 - Extending questions to provide explanations (e.g. Give a reason for your answer.)

5.1-5.6(1-6)

Question: What is the most common recyclable waste in your community?
Teacher: Ask learners to bring recyclable waste to school from their community e.g. plastic bottles, plastic bags, paper, cans and bottles. Learners work in groups of 4-5 to collect and sort objects. Thereafter learners must work individually.

a. Sort the waste into groups. (_)

b. Write down one below the other the names you have given these groups. (_)

c. Count how many bottles you collected (e.g. plastic bottles). Use a tally table. (_)

d.
- Decide how you can represent the different groups of waste in a pictograph.
- Draw the vertical and horizontal lines for your graph. Label the lines.
- Draw and fill in the information you collected on the graph.
- Give your graph a heading. (_)

e. Answer the following questions from the graph.
- How many plastic bottles did you collect?
- How many cans did you collect?
- What is the most common waste you collected? Give a reason for this.
- What did you collect the least of? Give a reason for this.
- What is the difference between the most and least waste you collected?
- How many more …… were collected than……? (_)

Teacher: A learner from each group must show and explain to the whole class his/her pictograph and the answers to the questions.

Memo	**Accept any reasonable representation of a pictograph to show the most common recyclable waste in the learners' community.**

5 Data handling: grade 3

The progression of the levels follow similar steps linked to the Data Handling Cycle and can be described as follows:
Level 1 – Collecting and sorting data in order to answer a question
Level 2 – Explaining how the data was sorted in relation to the question
Level 3 – Organising the data in tallies, lists or tables
Level 4 – Representing the data in a pictograph or a bar graph
Level 5 – Answering questions based on a pictograph (e.g. How many more jerseys than trousers were sold in the week? Give a reason for your answer.)
Level 6 – Answering more complex questions (e.g. Would another clothing shop have a similar bar graph for their items sold in a week? Explain.)

5.1-5.6 (1-6) Question: What were the most popular clothing items sold at a clothing shop during a week?

Teacher: Give the learners small blocked paper to draw the bar graph.

The following is a list of items of clothing sold at a shop during a week.

white jersey	pink shirt	navy jersey	spotted skirt
grey trousers	blue shirt	striped skirt	black trousers
blue-striped shirt	grey shirt	navy jersey	grey jersey
pink shirt	white shirt	grey trousers	navy jersey
blue shirt	navy jersey	white shirt	navy jersey
black shirt	navy jersey	navy jersey	

a. Sort the clothes into groups. (_)

b. Draw up a tally table to show the number of clothes sold in each group at the shop during the week. (_)

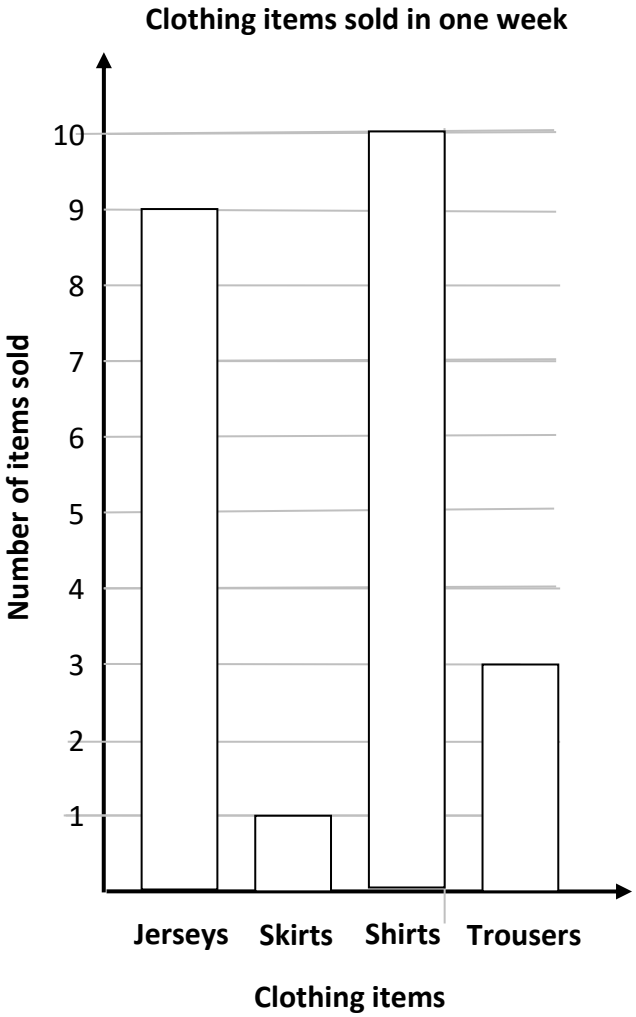
c. Draw a bar graph to show the number of clothes sold in each group during the week.
Remember to give the graph a heading and to label the horizontal and vertical lines of the graph. (_)

d. Answer the following questions from the graph.

- How many jerseys were sold in the week?
- How many shirts were sold in the week?
- How many more jerseys than trousers were sold in the week?
- What item of clothing was sold the most during the week? Why do you think this was the case?
- What item of clothing was sold the least during the week?
- Would another clothing shop have a similar bar graph for their items sold in a week? Explain.
- If 9 more shirts were sold, how many shirts would have been sold? (_)

Teacher: A learner from each group must show and explain to the whole class his/her pictograph and the answers to the questions.

Memo c.



d.

- **9 jerseys were sold in the week.**
- **10 shirts were sold in the week.**
- **6 more jerseys than trousers were sold in the week.**
- **The item sold the most: shirts (10)**
- Why do you think this was the case? **Accept any reasonable explanation (e.g. There may have been a special promotion on the shirts during that week.)**
- **The item sold the least: skirt (1)**
- Would another clothing shop have a similar bar graph for their items sold in a week? Explain. **Accept any reasonable explanation (e.g. The bar graphs would differ since they would be selling different items and may have different clothing items at a special price.)**
- **With 9 more sold, there would be 19 shirts sold altogether.**