Choosing the most appropriate NumberSense Workbook for a child

Children will benefit most from the NumberSense Workbook Series if they start with the workbook that matches their stage of number sense development. In that way they will be able to work confidently and independently through the workbook.

The workbooks are developmental in nature. Each workbook builds on the concepts and skills developed in the previous workbook. To gain as much as possible from the workbook series children should work through the materials in the sequence that they appear in the workbook.

To help you choose the NumberSense Workbook that is most appropriate for a particular child; three sample pages are available for each of the 26 workbooks in the series. These sample pages are available in all of the languages that the booklets have been translated into. The purpose of these sample pages is to assist you to decide on the first workbook that a child will start working in.

Using the sample pages to choose the most appropriate workbook for a child

Use the *NumberSense Workbook Grade Guide* at www.NumberSense.co.za to determine the ideal workbook for a child based on their Grade and the time of the year. Then:

- Start with the sample pages from the workbook at least four workbooks before the ideal one.
- Let the child work through these pages by him/herself.
  - o If the child finds the activities on the pages too easy (and gets all the answers correct); repeat the exercise with the sample pages from the next workbook.
  - o If the child struggles with the pages then repeat the exercise with the sample pages from an earlier workbook in the series.

The best initial workbook for a child is the workbook before the one in which the child starts to struggle.

Having decided on an initial workbook for a child let him/her work through that workbook and those that follow at a pace of at least one page per day.

1. Ben attends soccer practice for **90** minutes on **4** days of the week.

    a. How many minutes practice is that per week?

    b. How many hours?

2. The lengths of the first five songs on a CD are given as: 2:15   3:10   2:50   3:05   2:45

    a. How long is that in total?

    b. Is there an easy way to add up the times? Show how.

3. The school organises a hockey day. The matches start at **08:00** and cannot continue later than **18:00**. A new match starts at every $1\frac{1}{2}$ hours. How many matches can they play? Write down the starting times of the matches. The first two have been done for you.

    Match 1:   08:00

    Match 2:   09:30

4. How many leap years in the period **1900** to **2000**?

5. Complete.

    a. 6 weeks = _____ days

    b. 9 hours = _____ minutes

    c. 240 seconds = _____ minutes

    d. 72 hours = _____ days

    e. 730 days = _____ years

    f. 4 days = _____ hours

1. The length of a coil spring increases when mass pieces are attached to it.

   a. Complete the table for the length of the spring with different mass pieces (with the same mass) suspended from it.
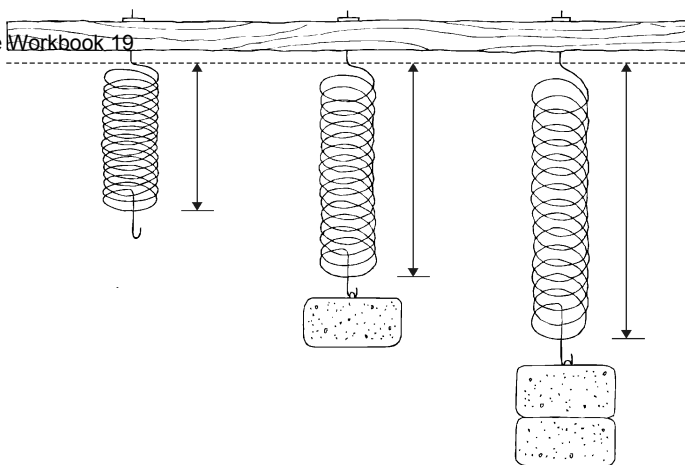
No. of mass pieces	1	2	3	4	6	8	10	12	15
Length of spring (cm)					38,6	39,8			44

   b. By how much does the length of the spring increase when the load is increased by one mass piece?

   c. What is the length of the spring when there is no mass pieces attached to it?

   d. Create a flow diagram to show how you can calculate the length of the spring when you know how many mass pieces are attached to it.

2. Complete the chain. Write your answers in decimal form.

3. Fill in the numbers on the number line where indicated. Write your answers below the arrows.
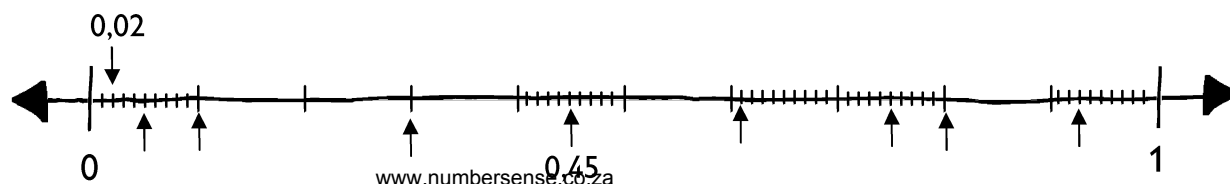
1. There are **11** players in a hockey team. 24 teams take part in a tournament. How many players altogether?

There are **11** players in a hockey team. 36 teams take part in a tournament. How many players altogether?

36 × 11
It is easy to multiply by 10,
36 × 10 = 360.
Then I must add 36,
360 + 36 = 396 players.

Sindi breaks up 11 so that she can multiply by 10 and then compensate.

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2. Use "breaking up", "multiplying by 10" and "compensating" strategies to calculate.

    a. 11 × 15 = _____
    b. 23 × 11 = _____
    c. 32 × 11 = _____

    d. 11 × 35 = _____
    e. 11 × 45 = _____
    f. 54 × 11 = _____

    g. 66 × 11 = _____
    h. 72 × 11 = _____
    i. 81 × 11 = _____

Sindi can you use this strategy to do 36 × 12?

Yes, 36 × 12
= 36 × 10 + 2 × 36
= 360 + 72
= 432

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3. Use "breaking up", "multiplying by 10" and "compensating" strategies to calculate.

    a. 24 × 12 = _____
    b. 12 × 32 = _____
    c. 12 × 43 = _____

    d. 52 × 12 = _____
    e. 64 × 12 = _____
    f. 12 × 55 = _____

    g. 12 × 46 = _____
    h. 12 × 34 = _____
    i. 77 × 12 = _____