Brombacher & Associates

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. John buys a plot of land with an area of 750 square metres. He plans to build a house with an area of 600 square metres.

   a. What fraction of the plot will be covered by the house?

   b. What percentage of the plot is this?

   c. Municipal building regulations state that no more than 90% of a plot may be covered by buildings. How many square metres of his plot may John cover with buildings?

2. Lisa budgets her monthly spending. Her monthly income is R5 000. Work out how much she has available for each budget item.

	% allocated	Amount in R
Rent	30%	
Groceries	20%	
Transport	15%	
Personal	35%	

3. Bulelani makes furniture in his spare time. It costs him about R2 400 to make a set of 6 chairs which he sells for R3 000 altogether.

   a. How much profit does he make altogether?

   b. What percentage profit does he make altogether?

   c. How much profit does he make on each chair?

   d. What percentage profit does he make on one chair?

4. Andy makes and sells hotdogs. It costs him R5,00 to make a hotdog. He sells the hotdogs for R7,50 each.

   a. What is his percentage profit per hotdog?

   b. One afternoon he makes 80 hotdogs. After selling 20 at R7,50 each, he lowers his price and sells the rest at R4,50 each. What percentage profit/loss does he make for the afternoon?
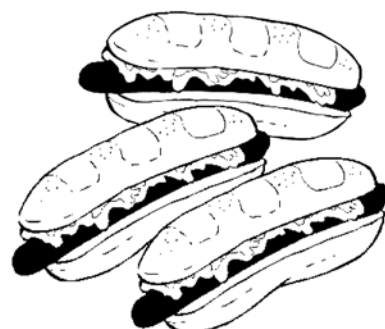
1. Marie earns R480 per month by working as a waitress on weekends. She budgets her spending carefully.

    The budget shows what fraction of the R480 she allocates to different things.

    Savings $\frac{1}{3}$ Books/CDs $\frac{1}{8}$

    Clothes $\frac{1}{4}$ Other   ☐

    Movies/shows $\frac{1}{6}$

    a. Calculate how much money she spends on each category.

    b. Marie heard about some raffle tickets that cost R12 each. By buying a raffle ticket she could win some big prizes. Express the cost of a raffle ticket as a fraction of Marie's monthly budget.

    c. If Marie uses the money budgeted for books/CDs to buy raffle tickets instead, how many raffle tickets can she buy?

    d. If Marie uses the money budgeted for clothes to buy raffle tickets instead, how many raffle tickets can she buy?

    e. What fraction of Marie's money is left over for "other"?

    f. Use your calculations in b, c and d to complete:

        • $\frac{1}{4} = \frac{}{40}$

        • $\frac{1}{8} = \frac{}{40}$

2. Write as one fraction.

    a. $\frac{1}{3} + \frac{1}{4}$ d. $\frac{1}{6} + \frac{1}{12}$
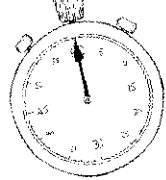
    b. $\frac{1}{4} + \frac{1}{6}$ e. $\frac{2}{3} + \frac{3}{4}$

    c. $\frac{1}{4} + \frac{1}{12}$ f. $\frac{2}{3} + \frac{1}{6}$

1. Use a "breaking up" strategy to calculate.

   a. 3 560 ÷ 5 = _____

   b. 4 230 ÷ 6 = _____

   c. 3 542 ÷ 7 = _____

   d. R21,14 ÷ 7 = _____

   e. R48,96 ÷ 8 = _____

   f. R72,30 ÷ 6 = _____

   g. 4 256 ÷ 4 = _____

   h. R168,60 ÷ 3 = _____

   i. R369,18 ÷ 9 = _____

   j. 1 545 ÷ 5 = _____

   k. 3 800 ÷ 4 = _____

   l. 3 372 ÷ 3 = _____

   m. R169,44 ÷ 8 = _____

   n. 8 118 ÷ 9 = _____

   o. 3 585 ÷ 5 = _____

   p. R18,60 ÷ 6 = _____

   q. 7 511 ÷ 7 = _____

   r. R72,88 ÷ 8 = _____

2. Complete by writing yes or no in each space.

Divisible by:	2	3	5	6	9	10
264	Yes					
7 245						
3 690						
2 794						
27 243						
5 706						
5 700						
2 468						
2 115						
1 230 000						

3. Use a "breaking up" strategy to calculate.

   a. 176 ÷ 4 = _____

   b. 1 842 ÷ 3 = _____

   c. 378 ÷ 6 = _____

   d. 4 900 ÷ 5 = _____

   e. 4 980 ÷ 6 = _____

   f. 3 900 ÷ 6 = _____

   g. 581 ÷ 7 = _____

   h. 4 480 ÷ 7 = _____

   i. 4 278 ÷ 6 = _____

   j. 1 620 ÷ 3 = _____

   k. 2 745 ÷ 3 = _____

   l. 2 891 ÷ 7 = _____

   m. 5 250 ÷ 7 = _____

   n. 6 800 ÷ 8 = _____

   o. 392 ÷ 7 = _____

   p. 2 100 ÷ 6 = _____