

# Mathematical Literacy 2

## Hands-On Support

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### *Supplementary homework assignments*

These homework assignments are designed as supplementary material to reinforce learning in class. They are mainly recall in nature, rather than being aimed at assessment. As such, they are not recommended for use as either summative or formative assessment tasks. However, the facilitator can use them to track student participation, and can form a good guideline as to who is pulling their weight and who isn't.

## Module 1

### Assignment 1:

Calculate the following with your calculator:

1.  $1048 \times 75 =$
2.  $56 \times 56 =$
3.  $100 + 3\% =$
4.  $507 + 8\% =$
5.  $872 \div 4 =$
6.  $6 \times 7 \times 8 \times 9 \times 10 =$
7.  $256 \div 2 \div 2 \div 2 \div 2 \div 2 \div 2 \div 2 \div 2 =$
8.  $3 \times 3 \times 3 \times 3 \times 3 \times 3 =$
9.  $57 \times 104 \div 20 + 3 - 10 =$
10.  $81 \div 9 \times 16 \div 2 + 5 - 10 =$

### Assignment 2:

1. Estimate the following:
  - a.  $48 \times 52 =$
  - b.  $1024 \div 16 =$
  - c.  $81 \times 59 =$
  - d.  $27 \times 63 =$
  - e.  $87 \times 61 =$
2. Round off the following to the specified decimal place:
  - a. 31 769 (10)
  - b. 0.9999 (0.001)
  - c. 536 842 (1000)
  - d. 15 974 310 (1 000 000)
  - e. 0.33333 (0.1)

### Assignment 3:

1. Perform the following calculations:
  - a.  $-5 + 10$
  - b.  $-7 - 3$
  - c.  $-8 - (-4)$
  - d.  $4 - 9$
  - e.  $5 + (-16)$
2. Convert the following to decimals:
  - a.  $\frac{5}{10}$

b.  $\frac{3}{21}$

c.  $\frac{4}{9}$

d.  $\frac{6}{7}$

e.  $\frac{99}{100}$

f.  $\frac{100}{180}$

g.  $\frac{180}{210}$

h.  $\frac{61}{72}$

i.  $\frac{72}{80}$

j.  $\frac{56}{60}$

3. Convert the following to fractions

a. 0.3

b. 0.51

c. 0.52

d. 0.6

e. 0.384

f. 0.625

g. 0.750

h. 0.925

i. 0.684

j. 1.497

## Assignment 4

Calculate the following percentages

a. 0.4

b.  $\frac{7}{10}$

c. 1.625

d.  $\frac{1625}{1000}$

e. 0.976

- f.  $\frac{4}{9}$
- g.  $\frac{32}{50}$
- h.  $\frac{87}{86}$
- i.  $\frac{125}{100}$
- j.  $\frac{204}{102}$

### Assignment 5:

Calculate the following:

- a. 65% of R450
- b. 28% of R120
- c. 14% of R280
- d. 10% of R1 200
- e. 75% of R250
- f. 33.3% of R600
- g. 45% of R90
- h. 67% of R150
- i. 71% of R910
- j. 85% of R999

### Activity 6

Do the following conversions

- a. 230 l → ml
- b. 10 400m → km
- c. 9 876 000 mg → kg
- d. 4 560 000 000 mg → t
- e. 2t → g
- f. 1 hour → sec
- g. 1 day → min
- h. 1 year → hours
- i. 5 km / h → m/s
- j. 20 m/s → km/h

### Activity 7

Challenge: Add all the numbers from 1 to 100 (hint there is a shortcut, see if you can find it)

## **Module 2:**

### **Assignment 1:**

List all your household's monthly expenses and categorise them into fixed and variable expenses.

### **Assignment 2:**

Describe how you would go about keeping record of your income and expenses

### **Assignment 3:**

Explain three reasons why you should save for the future.

### **Assignment 4:**

Describe inflation and try to get information about the inflation rate.

### **Assignment 5:**

Describe the process of budgeting

### **Assignment 6:**

Describe briefly the 8 financial documents that you will deal with from day-to-day

### **Assignment 7**

What are the benefits of the National Credit Act?

## Module 3

### Assignment 1:

1. Draw the following:
  - a. Square
  - b. Rectangle
  - c. Triangle
  - d. Circle
  - e. Cube
  - f. Triangular prism
  - g. Cone
  - h. Sphere
2. Illustrate the following on a cube:
  - a. Parallel lines
  - b. Perpendicular lines
  - c. Right angles
3. Illustrate the following on a circle:
  - a. Radius
  - b. Diameter
  - c. Circumference

### Assignment 2:

*Calculate the following:*

1. Perimeter of a rectangle 8 x 8
2. Area of the rectangle above
3. Perimeter of the triangle vertical height 8; width 6

### Assignment 3:

Calculate for the following circles:

Radius 5cm; Radius 7cm

- a. Circumference
- b. Diameter
- c. Area

## Module 4

### Assignment 1

Describe four ways of getting information.

### Assignment 2

Draw up a pie chart of the following:

Percentage of national budget spent on various departments

- Economic affairs 22%
- Housing and community amenities 9%
- Health 10%
- Education 17%
- Social protection 14%
- Other 15%
- Defense 4%
- Public order and safety 9%

### Assignment 3

Draw up a line graph of the following:

Rainfall in Cape Town

<b>Jan</b>	15	<b>Jul</b>	82
<b>Feb</b>	17	<b>Aug</b>	77
<b>Mar</b>	20	<b>Sep</b>	40
<b>Apr</b>	41	<b>Oct</b>	30
<b>May</b>	69	<b>Nov</b>	14
<b>Jun</b>	93	<b>Dec</b>	17

### Assignment 4

Sketch the following points on a set of axes.

- (0;0)
- (4;5)
- (-4; -5)
- (4; -5)
- (2; 7)
- (-6; -6)
- (-7; -2)
- (6; 4)

## Assignment 5

Draw bar graphs of the maximum temperature of Cape Town

<b>Jan</b>	26	<b>May</b>	20	<b>Sep</b>	19
<b>Feb</b>	27	<b>Jun</b>	18	<b>Oct</b>	21
<b>Mar</b>	25	<b>Jul</b>	18	<b>Nov</b>	24
<b>Apr</b>	23	<b>Aug</b>	18	<b>Dec</b>	25

## Assignment 6

Calculate the mean, median and mode for the following data:

- a. 67; 58; 76; 53; 29; 45; 24; 82; 28; 58
- b. 35; 48; 18; 14; 44; 70; 20; 29; 14; 30



## Module 5

### Assignment 1

- Complete the following:
  - 3; 6; 12; 24; ....; ....; ....; ....
  - 3; 6; 9; 12; ....; ....; ....; ....
  - $\frac{1}{2}$ ;  $\frac{1}{4}$ ;  $\frac{1}{8}$ ; ....; ....; ....; ....
  - 7; 14; 21; ....; ....; .....; ....
  - 9; 17; 25; ....; ....; ....; ....
- Calculate the accumulated interest on R1000 at 10% per annum over 10 years. At what point did you double the original amount? How long will it take to double if the interest rate is 20%?

### Assignment 2

Complete the following tables:

5	6	7	8	9	10
7	10	13			

4	8	12	16	20	24
9	10	11			

6	7	8	9	10	11
32	37	42			

1	3	5			
0	20	40			

### Assignment 3

Calculate the formula for each of the following:

3	4	5	6
9	12	15	18

4	7	10	13
18	33	48	63

1	2	3	4
5.5	6	6.5	7.0

5	7	9	11
3	5	7	9

5	10	15	20
2	2	2	2