

Mathematical Literacy 4 - Module 2

Name:

Marks Available: 60

Time: 45 minutes

Question 1:

State whether each of the following are arithmetic or geometric patterns:

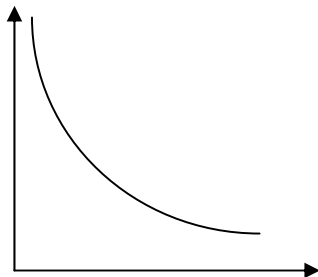
- a. If a bus ticket from Johannesburg to Durban costs R500 then two tickets costs R1 000. (A / G)
- b. I earn interest on R1000 invested at the bank. (A / G)
- c. The population growth rate of the human race. (A / G)
- d. The rate of infection during an outbreak of flu. (A / G)
- e. The founder of Intel Corporation, Gordon Moore, predicted that the speed of computers will double every 18 months. (A / G)

[10]

Question 2:

State whether each of the following are a direct or inverse relationship.

- a. The price of petrol vs. the volume that you can buy. (D / I)
- b. The price of houses vs. the number of houses sold. (D / I)
- c. $y = 5x + 40$ (D / I)
- d. $xy = 15$ (D / I)
- e. (D / I)



[10]

Question 3:

A telephone bill is charged at R115 for the line rental and 57c / min for calling.

- a. Write the equation for the monthly cost of calls. (2)
- b. Complete the table illustrating the total cost per month for the telephone bill. (3)

Time	1/2 hour	1 hour	1.5 hours	2 hours	2.5 hours	3 hours
Cost						

c. Draw a line graph of this. (5)

[10]

Question 4:

a. Calculate the simple interest earned if the principle amount = R30 000; time = 5 years and interest rate = 12% (3)

b. Calculate the Celsius temperature if the Farenheit temperature is 100 (3)

c. How much water is there in a water tanker 10m long with a circumference of 2m. (3)

d. What is its estimated surface area? (3)

e. How much fencing would be needed to fence a farm 3km long and 3850m wide? (3)

[15]

Question 5:

Latest car sales may signal the end of the downturn.

The total new-vehicle market rebounded slightly in September, with sales increasing by 6,1%, compared with figures for August, to reach 35 931 units.

Sales of new passenger cars in September showed an increase of 6,2% over sales recorded in August, totalling 23 813 units.

September sales in the light commercial vehicle segment increased by 5,5% from August, but the 10 525 units fell 21,9% short of September 2008 sales.

The 551 medium commercial vehicles sold were 2% up on last month's results, but 35,8% in the red compared with figures for September last year.

Sales in the heavy commercial vehicle segment reached 1 042 units, an increase of 10,4% on August's results, but 48,6% down on the number achieved in September 2008.

a. Represent the information in a table. (3)

b. What do the percentages tell you? (6)

c. Represent the information in a bar graph. (6)