



# higher education & training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

## **GENERAL EDUCATION AND TRAINING CERTIFICATE**

### **NQF LEVEL 1**

### **AET LEVEL 4 SITE-BASED ASSESSMENT**

**LEARNING AREA : MATHEMATICS AND  
MATHEMATICAL SCIENCES**

**CODE : MMSC4**

**TASK : ASSIGNMENT**

**DURATION : TWO WEEKS**

**MARKS : 50**

**This assessment task consists of 5 pages and an addendum**

## INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions in the ANSWER BOOK.
2. Calculators may be used unless stated otherwise.
3. Show ALL your calculations.
4. Write legible and present your work clearly.

### QUESTION 1

- 1.1 Kate visits companies to train their interns to use computer hardware and software. She charges a fixed price of R225,00 for visiting the company and an additional fee for each intern in the class. The additional fee per intern is constant throughout the five companies. The table below shows the number of interns and the total amount charged to the 5 companies that she visited.

COMPANIES	WORKERS PER CLASS	TOTAL AMOUNT
Company A	5	R400
Company B	11	R610
Company C	17	R820
Company D	3	R330
Company E	25	R1 100

- 1.1.1 How much did Kate charge for each worker per company? (3)
- 1.1.2 Determine the equation for the total amount ( $y$ ) paid for any number of workers ( $x$ ). (2)
- 1.1.3 Last week Kate had a class which she charged the company R505 to teach. How many interns were in the class? (3)
- 1.2 Two runners are practising for a marathon. They start running at 5h30 from the same area but in the opposite direction. The first runner runs at the constant speed of 11  $km/h$  and the second athlete at 9  $km/h$ .
- 1.2.1 Complete the following table by filling in the distances of the two runners in terms of  $x$ . Let time be  $x$
- | Speed     | Distance | Time |
|-----------|----------|------|
| 11 $km/h$ |          | $x$  |
| 9 $km/h$  |          | $x$  |
- 1.2.2 At what time will the two runners be 70  $km$  apart from each other? (3)

[15]

**QUESTION 2**

- 2.1 Mr Mchunu decided to open a bakery. He rents a building for R500,00 a month and spends R5,00 to produce a loaf of bread.

2.1.1 Copy and complete the table below:

Loaves of bread (B)	0	1	2	3	5		30
Total amount of expenses (R)	500	505		515		535	

(4)

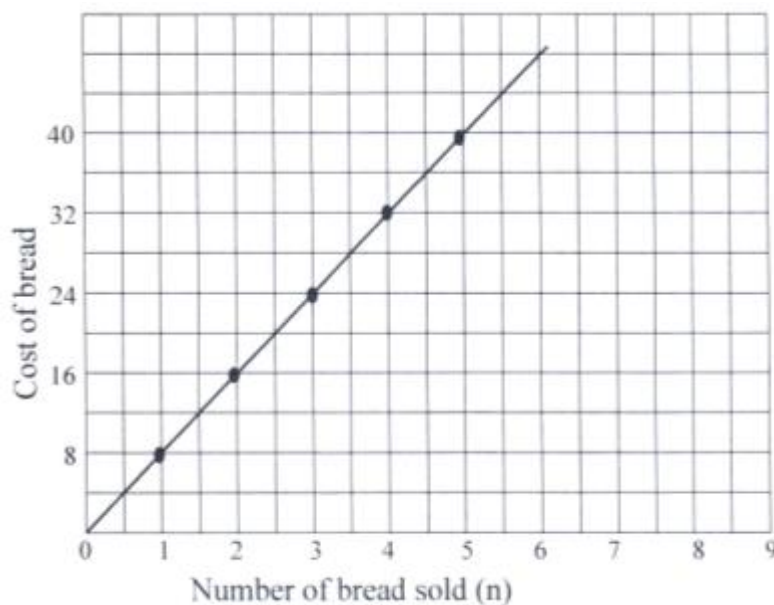
- 2.1.2 Use the information in the table above to identify which of the two variables is independent.

(1)

- 2.1.3 Use the table in QUESTION 2.1.1 to draw and label a graph on ANNEXTURE A.

(5)

- 2.2 Mr Mchunu is selling his bread for R8,00 a loaf. The graph below shows the cost of bread ( $c$ ) and number of bread sold ( $n$ ).



- 2.2.1 Write the formula that describes the relationship between the cost of bread ( $c$ ) and the number ( $n$ ) loaves of bread sold.

(2)

- 2.2.2 Give this graph a heading.

(1)

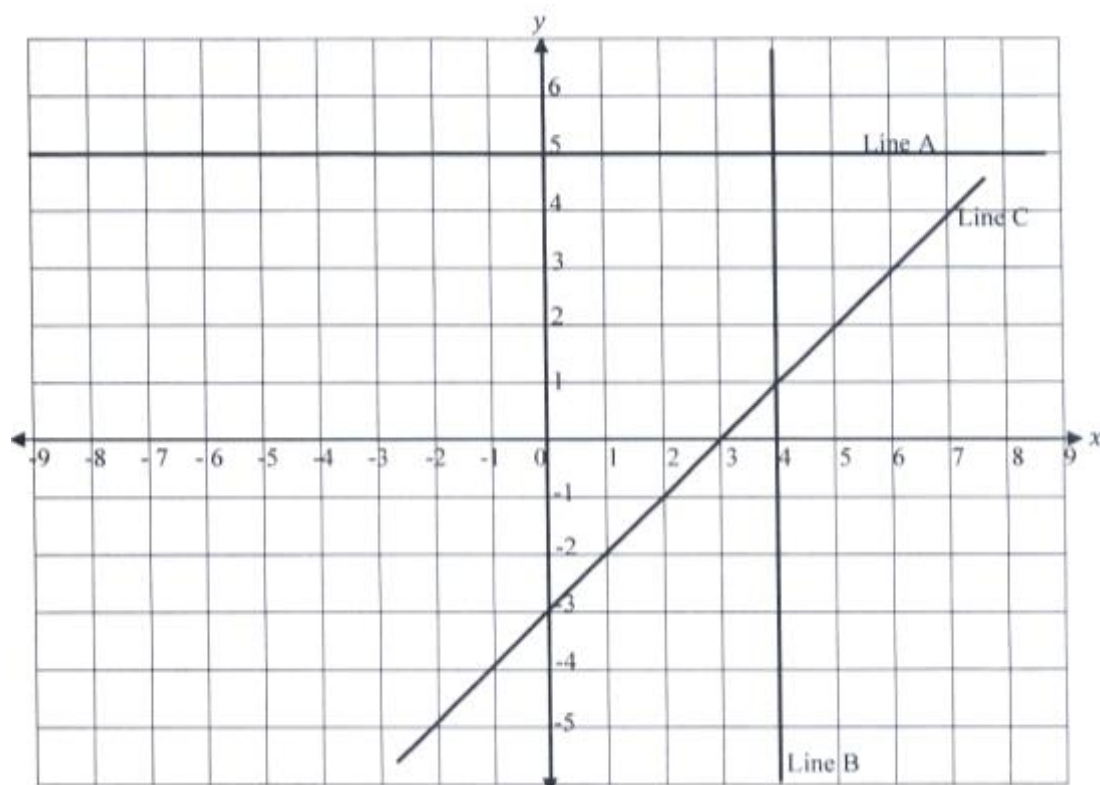
- 2.2.3 How many loaves will he sell for R592?

(2)

**[15]**



3.3 Study the diagram below which consists of different straight line graphs.



Determine the equations of the following lines:

3.3.1 Line A (1)

3.3.2 Line B (1)

3.3.3 Line C (2)

[20]

**TOTAL: 50**

<b>NAME AND SURNAME:</b>	
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**ADDENDUM 2.1.3**