

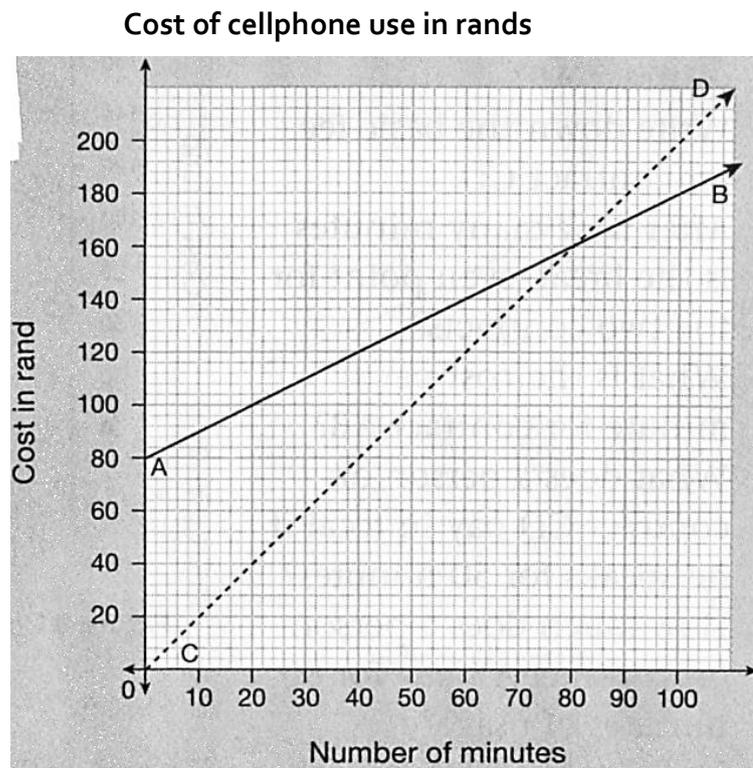
## Monyetla Bursary Project

### Grade 11

#### Lesson 1: Finance Questions

##### **QUESTION 1:**

The graphs below describe the usage on a cellphone contract as well as a "Pay as you go" situation. Use these graphs to answer the questions that follow.



- 1.1 Which line, AB or CD, represents the contract option? Give a reason for your answer. (3)
- 1.2 What does it cost to talk for 10 minutes on option CD? (2)
- 1.3 What is the cost per minute for option CD? (2)
- 1.4 At what usage (number of minutes) is the cost the same for both options? (2)
- 1.5 What is the point mentioned in 1.4 called? (2)
- 1.6 Give advice on which option a client should choose. (4)

**[15]**

## QUESTION 2:

Dineo wants to rent a coffee machine for the school's tuck shop. She needs to work out how many cups of coffee she will need to sell in order to make a profit.

The cost and income for one month are as follows:

- It will cost R250 per month to rent the machine
- There is an additional cost of R2,50 per cup for coffee, sugar, milk and take-away cups.
- She will sell the coffee at R5,00 per cup

**TABLE 1: Cost and Income for selling coffee**

Nr of cups	25	50	75	100	150	200	300	400	500
Cost(R)	312.50	375	437.50	500	625	<b>A</b>	1 000	1 250	1 500
Income(R)	125	250	375	500	<b>B</b>	1 000	1 500	2 000	2 500

2.1 Calculate the values of **A** and **B** in the table. (5)

2.2 The income (in rands) from selling coffee is calculated by using the following formula: (2)

$$\text{Income (in rands)} = R5 \times \text{number of cups sold}$$

Use Table 1 above and construct a formula that Dineo can use to calculate her total cost (in rands) for selling coffee in the form:

$$\text{Total cost (in rands)} = \dots$$

2.3 If 260 cups of coffee are sold, what will Dineo's profit be? (3)

2.4 It will cost Dineo 50c more per cup of coffee if she replaces the sugar with honey. (5)  
Dineo stated that 100 cups of coffee will cost her R50 more if honey is used to sweeten the coffee. Verify, with calculations, whether her statement is valid.

- 2.5 A graph of the Income generated from selling coffee is drawn on the ANSWER SHEET. Use the information on table 1 to draw a graph of the Cost of selling coffee. (5)
- 2.6 Write down the meaning of break-even in this context and give the values where the two graphs break even, either from the table or the graph. (4)

**[24]**