

LIVE: PAPER 2 QUESTIONS



Lesson Description

In this lesson we:

- Work through selected examination questions adapted from 2014 Exemplar Paper covering:
 - Finance
 - Data Handling



Challenge Question

(Adapted from DBE 2014 Exemplar P1, Question 3.2.5)

In 2012, the growth rate of the South African population was $-0,412\%$. Determine the population of South Africa in 2011 if the population was 48 810 427 in 2012.

Use the formula:

$$\text{Percentage growth} = \frac{(\text{Population 2012} - \text{Population 2011})}{\text{Population 2011}} \times \frac{100}{1}$$

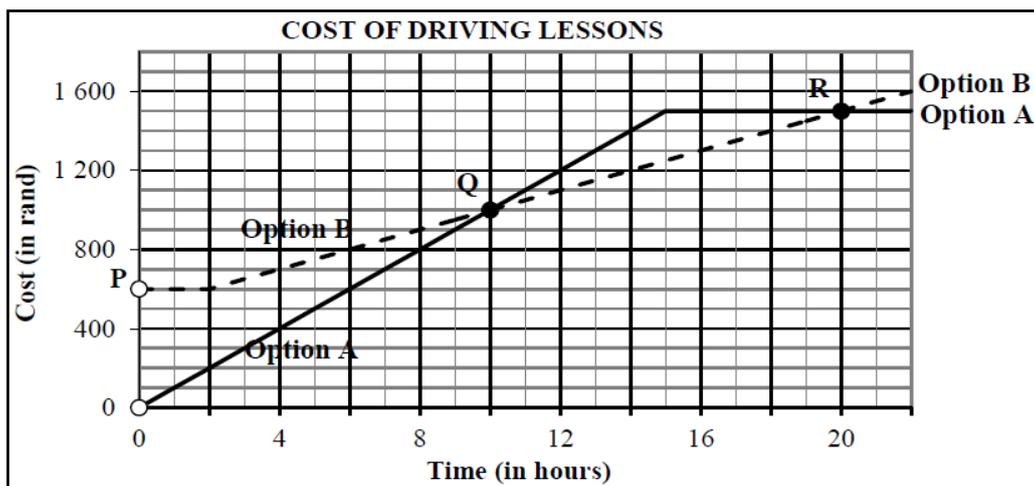


Improve your Skills

Question 1

(Adapted from Nov 2013, DBE, Paper 2, Question 5.2)

Toni charges the learners according to the payment options illustrated in the line graphs below. The line graphs only show the first 22 hours.



1.1 Interpret the horizontal section of the line graph for payment Option A.

(2)



- 1.2 Payment Option B starts at point P.
(a) Explain why point P is represented by an open circle on the graph. (2)
(b) Describe in detail the cost of driving lessons if option B is used. (3)
- 1.3 The graphs intersect at points Q and R. Interpret the graphs at point Q. (2)
- 1.4 Zaheera budgeted R1 200 for her driving lessons.
Explain which option would be better for:
(a) Zaheera (2)
(b) Toni (2)
- 1.5 In an attempt to further reduce the total cost of her driving lessons, Zaheera asks a friend to teach her some basic driving skills. After a series of free lessons with her friend, she realises that she only requires 6 hours of lessons from a driving school.
Identify the option she should now choose. Explain your answer. (3)
- 1.6 Calculate the difference in cost for a learner using OPTION A and another learner using OPTION B if they both require 30 hours of lessons. (5)
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Question 2

(Adapted from Exemplar 2014, DBE, Paper 2, Question 1.1.1)

The Grade 12 class of XYZ High School is planning a Dinner and Dance evening to raise funds which they will use towards their matric farewell. The organising committee is divided into two groups. One group will investigate the use of the school hall and the other group will try to find another possible venue.

Tickets for the Dinner and Dance evening will be printed at the school at a cost of R2,20 per ticket.



The group that investigated the possibility of using the school hall gathered the following information:

- Disk jockey (DJ): R1 500 to play from 19:00 to 23:00 + R500 to play from 23:00 to 24:00 and after 12 o' clock midnight R1 000 per hour.

Calculate how much it will cost if the disk jockey plays from 7 o'clock in the evening to 2 o'clock the next morning. (3)



Question 3

(Adapted from Exemplar 2014, DBE, Paper 2, Question 4.1-4.2)

Ms Springbok runs a small tuckshop from her house. She sells sweets, chips, cans of cooldrink and vetkoek. Once a week she buys 6 cases of cooldrink for R137,50 each. A case of cooldrink consist of 4 six-packs. Each can contains 330 ml of cooldrink. At the end of the week all her cooldrinks are sold out.

- 3.1 If she sells the cooldrink in her tuckshop for R8,00 a can, what percentage does she add to the cost price per can to determine her selling price? (7)
- 3.2 A new 330 ml bottle of cooldrink is available. The sales representative of the cooldrink company wants Ms Springbok to sell the bottles instead of the cans. The new bottles must be sold for R5,00 each. Ms Springbok finds out that the new bottles will cost her R4,20 each.
- 3.2.1 The sales representative's argument is that the new R5,00 bottle costs less, therefore more people will buy it. Does she have a valid argument? (2)
- 3.2.2 Calculate how many bottles Ms Springbok must sell per week to make the same profit as for the cans. (5)
- 4.2.3 Calculate the percentage increase in sales.
You may use the following formula: (3)
- $$\text{Percentage increase in sales} = \frac{\text{Increased number sold per week}}{\text{Original number sold per week}} \times 100$$
- 3.2.4 Explain how Ms Springbok can use this percentage increase in sales as a reason why she doesn't want to sell the bottles in her tuckshop. (3)

Question 4

(Adapted from Nov 2013, DBE, Paper 2, Question 4.2)

A courier company charges a certain rate for the delivery of ordinary parcels. It costs R30,50 to deliver an ordinary parcel for the first kilogram or less. If a parcel has a mass of more than 1 kg, there is an additional charge of R4,50 per kg.

- 4.1 Write down the formula that could be used to calculate the delivery cost of ordinary parcels of different masses. (3)
- 4.2 TABLE 1 below summarises the delivery cost of ordinary parcels according to mass.

Table 1: Delivery cost of an ordinary parcel according to mass

Mass (in kg)	0	0,5	1	2,5	3	B
Cost (in rand)	0	30,50	30,50	A	39,50	70,55

- Determine the missing values A and B. (6)
- 4.3 Use TABLE 1 above and the grid below to draw a line graph that represents the relationship between the delivery cost and mass of an ordinary parcel. (6)



COST OF ORDINARY PARCELS ACCORDING TO MASS

