

PERCENTAGE CHANGE

Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Higher Tier

1.

- 5** Sean pays £10 for 24 chocolate bars.
He sells all 24 chocolate bars for 50p each.
Work out Sean's percentage profit.

..... %

(Total for Question 5 is 3 marks)

Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Higher Tier

2.

- 18** x is proportional to \sqrt{y} where $y > 0$
 y is increased by 44%
Work out the percentage increase in x .

..... %

(Total for Question 18 is 3 marks)

Pearson Edexcel - Monday 12 November 2018 - Paper 3 (Calculator) Higher Tier

3.

- 2** Last year Jo paid £245 for her car insurance.
This year she has to pay £883 for her car insurance.

Work out the percentage increase in the cost of her car insurance.

.....%

(Total for Question 2 is 3 marks)

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Higher Tier

4.

9 $T = \sqrt{\frac{w}{d^3}}$

$w = 5.6 \times 10^{-8}$

$d = 1.4 \times 10^{-4}$

(a) Work out the value of T .

Give your answer in standard form correct to 3 significant figures.

$T = \dots\dots\dots$
(2)

w is increased by 10%

d is increased by 5%

Lottie says,

“The value of T will increase because both w and d are increased.”

(b) Lottie is wrong.

Explain why.

.....
.....
(2)

(Total for Question 9 is 4 marks)

13 At the beginning of 2009, Mr Veale bought a company.
The value of the company was £50 000

Each year the value of the company increased by 2%.

- (a) Calculate the value of the company at the beginning of 2017
Give your answer correct to the nearest £100

£.....
(2)

At the beginning of 2009 the value of a different company was £250 000
In 6 years the value of this company increased to £325 000

This is equivalent to an increase of $x\%$ each year.

- (b) Find the value of x .
Give your answer correct to 2 significant figures.

.....
(3)

(Total for Question 13 is 5 marks)

15 A pendulum of length L cm has time period T seconds.
 T is directly proportional to the square root of L .

The length of the pendulum is increased by 40%.

Work out the percentage increase in the time period.

.....%

(Total for Question 15 is 3 marks)

Pearson Edexcel - Sample Paper 1 - (Non-Calculator) Higher Tier

7.

15 In a shop, all normal prices are reduced by 20% to give the sale price.

The sale price of a TV set is then reduced by 30%.

Mary says,

“ $30 + 20 = 50$, so this means that the normal price of the TV set has been reduced by 50%.”

Is Mary right?

You must give a reason for your answer.

.....

.....

.....

(Total for Question 15 is 2 marks)

Pearson Edexcel - Friday 6 November 2015 - Paper 2 (Calculator) Higher Tier

8.

14 Each year Wenford Hospital records how long patients wait to be treated in the Accident and Emergency department.

In 2015 patients waited 11% less time than in 2014
In 2015 the average time patients waited was 68 minutes.

- (a) Work out the average time patients waited in 2014
Give your answer to the nearest minute.

..... minutes
(3)

The hospital has a target to reduce the average time patients wait to be treated in the Accident and Emergency department to 60 minutes in 2016

- (b) Work out the percentage decrease from 68 minutes to 60 minutes.

.....%
(2)

(Total for Question 14 is 5 marks)

Pearson Edexcel - Thursday 8 November 2012 - Paper 2 (Calculator) Higher Tier

9.

16 Bill's weight decreases from 64.8 kg to 59.3 kg.

Calculate the percentage decrease in Bill's weight.
Give your answer correct to 3 significant figures.

.....%

(Total for Question 16 is 3 marks)

OCR GSCE – Thursday 5 November 2020 – Paper 5 (Non-Calculator) Higher Tier

10.

10 Each day, Eve records how long it takes her to complete a puzzle.

On Friday, she took 50% less time than on Thursday.

On Saturday, she took 20% less time than on Friday.

On Saturday, she takes 36 minutes to complete the puzzle.

How many minutes did she take to complete the puzzle on Thursday?

Show your working.

..... minutes [5]

OCR GSCE – Thursday 7 November 2019 – Paper 5 (Non-Calculator) Higher Tier

11.

- 4 In 2017, a chocolate bar had a mass of 250 g.
In 2018, the mass of the chocolate bar was reduced to 220 g.

Work out the percentage decrease in the mass of the chocolate bar from 2017 to 2018.

..... % [3]

OCR GSCE – Tuesday 11 June 2019 – Paper 6 (Calculator) Higher Tier

12.

- 10 In 2017, the value of a house increased by 4%.
In 2018, the value of the house then decreased by 3%.

Teresa says

Over the two years the value of the house increased by exactly 1% because $4 - 3 = 1$.

Show that Teresa is wrong.

.....
..... [6]

OCR GSCE – Thursday 8 November 2018 – Paper 5 (Non-Calculator) Higher Tier

13.

- 7 Emily spent £2400 on holiday in 2017.
This was 20% more than she spent on holiday in 2016.

Calculate the amount she spent on holiday in 2016.

£ [3]

14.

- 11 The price of a washing machine is reduced by 20% for a sale.
Afterwards, the sale price is increased by 30%.

Joachim says

The washing machine is now 10% more expensive than before the sale.

Explain Joachim's error and work out the correct percentage change in the price of the washing machine from before the sale to after the sale.

Joachim's error is

.....

Correct percentage change is % **[6]**

15.

- 6 Jack sent 15% more text messages in March than in February.
Jack sent 460 text messages in March.

How many more texts did Jack send in March than in February?

..... [4]

OCR GCSE – Sample Papers – Paper 4 (Calculator) Higher Tier

16.

15 At a constant temperature, the volume of a gas V is inversely proportional to its pressure p .

By what percentage will the pressure of a gas change if its volume increases by 25%?

..... % **[4]**

17.

- 14 A marathon takes place each year.
In 2020 there were 6500 runners.

Prediction

For each of the next 3 years the number of runners will increase by 5%

Does this predict that in 2023 there will be more than 7500 runners?

You **must** show your working.

[3 marks]

20.

9 The cost of a ticket increases by 10% to £19.25

Work out the original cost.

[3 marks]

Answer £ _____