SCAN ME

REVISE THIS TOPIC

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1 Increase 150 by 10%

+

$$10\% = 15 \qquad 150 + 15 = 165$$

165

(Total for Question 1 is 2 marks)

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2 Decrease 4000 by 1%

$$1\% = 40 \qquad 4000 - 40 = 3960$$

3960

(Total for Question 2 is 2 marks)

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3 Increase 66 by 50%

+

$$50\% = 33 \qquad 66 + 33 = 99$$

99

(Total for Question 3 is 2 marks)

1

4 Decrease 420 by 20%

$-$

$$\times 2 \begin{pmatrix} 10\% = 42 \\ 20\% = 84 \end{pmatrix} \times 2 \qquad 420 - 84 = 336$$

336

(Total for Question 4 is 3 marks)

5 Increase 80 by 15%

$+$

$$\begin{array}{l} 10\% = 8 \\ \underline{5\% = 4} \\ 15\% = 12 \end{array} \qquad 80 + 12 = 92$$

92

(Total for Question 5 is 3 marks)

6 Decrease 250 by 30%

$-$

$$\times 3 \begin{pmatrix} 10\% = 25 \\ 30\% = 75 \end{pmatrix} \times 3 \qquad 250 - 75 = 175$$

175

(Total for Question 6 is 3 marks)

2

7 Increase 3650 by 2%

+

$$100 + 2 = 102$$
$$102 \div 100 = 1.02$$
$$3650 \times 1.02$$

3723

(Total for Question 7 is 2 marks)

8 Decrease 77 by 12%

$$100 - 12 = 88$$
$$88 \div 100 = 0.88$$
$$77 \times 0.88 = 67.76$$

67.76

(Total for Question 8 is 2 marks)

9 Increase 97150 by 27%

+

$$100 + 27 = 127$$
$$127 \div 100 = 1.27$$
$$97150 \times 1.27 = 123380.5$$

123380.5

(Total for Question 9 is 2 marks)

3

10 In 2024 the population of a small town is 18200
   Between 2024 and 2025 the population increased by 4%

   Work out the population of the town in 2025.

   $18\,200 \times 1.04$

   .... 18928 ....

   (Total for Question 10 is 2 marks)

11 The normal price of a laptop is £460
   The laptop is in a sale for 15% off.

   Work out the price of the laptop in the sale.

   460×0.85

   £ .... 391 ....

   (Total for Question 11 is 2 marks)

12 Ricky is paid £12.00 per hour.
   He receives a 2.5% pay rise.

   Work out Ricky's new hourly pay with the pay rise.

   12×1.025

   £ .... 12.30 ....

   (Total for Question 12 is 2 marks)

4

13 The bill at a restaurant is £82.00
There is an additional charge of 2% if paying by credit card.

Work out the total bill if paying by credit card.

$$82 \times 1.02$$

£ ___83.64___

(Total for Question 13 is 2 marks)

14 A regular box of cereal contains 120 grams.
A large box of cereal contains 30% extra.

Kelly buys 3 large boxes of cereal and 2 regular boxes.
Work out the total mass of all the boxes of cereal that Kelly buys.

$$120 \times 1.3 = 156$$

$$3 \times 156 = 468$$
$$2 \times 120 = 240$$

$$468 + 240 = 708$$

___708___ grams

(Total for Question 14 is 4 marks)

5

15 The prices for tickets to a theme park are shown below.

Adult ticket: £40

Child ticket: £25

Mr Woods buys 2 adult ticket and 3 child tickets.
He has a voucher that gives him 25% off.

Work out the total cost of the tickets when using the voucher.

$$40 \times 2 = 80$$
$$25 \times 3 = 75$$
$$80 + 75 = 155$$

$$155 \times 0.75$$
$$= 116.25$$

£ 116.25

(Total for Question 15 is 4 marks)

16 Luke receives 25% extra time for his exams.
One of Luke's exams lasts for 2 hours without the extra time.

Work out how long this exam is with the extra time.
Give your answer in hours and minutes.

$$2 \times 60 = 120 \text{ minutes}$$
$$120 \times 1.25 = 150 \text{ minutes}$$

2 hours 30 minutes

(Total for Question 16 is 3 marks)

1st

6

17 On Monday the daytime temperature was 15.0 °C
On Tuesday the daytime temperature was 2% higher than on Monday.

Rayna works out the daytime temperature on Tuesday with the following method

15 × 1.2 = 18 °C

Explain the mistake that Rayna has made.

1·2 increases by 20% rather than 2%. It should be × 1·02

(Total for Question 17 is 1 mark)

18 Jessie and James both train for long jump.

Compare to last year

Jessie increased her personal best jump by 12%
James increased his personal best jump by 10%

Who increased their personal best jump by a greater distance?
Tick **one** box

☐ Jessie   ☐ James   ☑ Not possible to tell

Give a reason for your answer.

We do not know their original personal bests.

(Total for Question 18 is 2 marks)