

Yr9 core mod 4 rev sheet 1

1)

- (a) Write twenty five million in figures.

Answer(a) ..... [1]

- (b) Write the following in order of size, starting with the smallest.

$$\frac{2}{3} \quad 65\% \quad 0.6$$

Answer(b) ..... < ..... < ..... [1]

- (c) In a sale a coat costing \$250 is reduced to \$200.

Find the percentage decrease in the cost.

Answer(c) ..... % [3]

2)

The distance between Geneva and Gstaad is 150 km.

- (a) Write 150 in standard form.

Answer(a) ..... [1]

- (b) A car took  $1\frac{1}{2}$  hours to travel from Geneva to Gstaad.

Calculate the average speed of the car.

Answer(b) ..... km/h [1]

- (c) A bus left Gstaad at 10 15.  
It arrived in Geneva at 12 30.

Calculate the time, in hours and minutes, that the bus took for the journey.

Answer(c) ..... h ..... min [1]

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- 3) (a) Using the exchange rates

$\$1 = 0.70$  Euros and  $\$1 = 90$  Yen

change

- (i) \$100 to Euros,

*Answer(a)(i)* ..... Euros [1]

- (ii) 100 Yen to dollars.

*Answer(a)(ii)* \$ ..... [2]

- (b) Tania went on holiday to Switzerland.  
The exchange rate was  $\$1 = 1.04$  Swiss francs (CHF).  
She changed \$1500 to Swiss francs and paid 1% commission.

- (i) How much commission, in dollars, did she pay?

*Answer(b)(i)* \$ ..... [1]

- (ii) Show that she received CHF 1544.40.

*Answer (b)(ii)*

[2]

- 4) The ratio of Anne's height : Ben's height is 7 : 9.  
Anne's height is 1.4 m.

Find Ben's height.

*Answer* ..... m [2]

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- 5) The distance between the centres of two villages is 8 km.  
A map on which they are shown has a scale of 1 : 50 000.

Calculate the distance between the centres of the two villages on the map.  
Give your answer in centimetres.

*Answer* ..... cm [2]

- 6) (a) Calculate 60% of 200.

*Answer(a)* ..... [1]

- (b) Write 0.36 as a fraction.  
Give your answer in its lowest terms.

*Answer(b)* ..... [2]

- 7) Joseph changed 120 New Zealand dollars (NZ\$) into Australian dollars (A\$) when the exchange rate was

$$\text{NZ\$1} = \text{A\$0.796}.$$

Calculate the exact amount he received.

*Answer A\$* ..... [1]

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- 8) (a) Lucinda invests \$500 at a rate of 5% per year **simple** interest.

Calculate the interest Lucinda has after 3 years.

Answer(a) \$ ..... [2]

- (b) Andy invests \$500 at a rate of 5% per year **compound** interest.

Calculate how much more interest Andy has than Lucinda after 3 years.

Answer(b) \$ ..... [4]

- 9) Write the following in order of size, starting with the smallest.

$$\frac{9}{8}$$

$$1.2$$

$$115\%$$

$$1\frac{1}{6}$$

Answer ..... < ..... < ..... < ..... [2]

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- 10) Mortar is a mixture of cement, sand and lime in the ratio

cement : sand : lime = 1 : 5 : 2.

Calculate how much sand there is in a 12 kg bag of this mortar.

*Answer* ..... kg [2]

- 11) A cruise ship travels at 22 knots.

[1 knot is 1.852 kilometres per hour.]

Convert this speed into metres per second.

*Answer* ..... m/s [3]

- 12) Write the following in order of size, starting with the smallest.

0.525       $\frac{11}{21}$        $\frac{111}{211}$       52.4%

*Answer* ..... < ..... < ..... < ..... [2]

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- 13) Martha divides \$240 between spending and saving in the ratio  
spending : saving = 7 : 8.  
Calculate the amount Martha has for spending.

Answer \$ ..... [2]

- 14) Calculate the selling price of a bicycle bought for \$120 and sold at a profit of 15%.

Answer \$ ..... [2]

- 15) Pedro invested \$800 at a rate of 5% per year **compound** interest.  
Calculate the **total** amount he has after 2 years.

Answer \$ ..... [2]

- 16) For her holiday, Dina changed 500 Swiss francs (CHF) into pounds (£).  
The rate was £1 = CHF 1.6734.  
Calculate how much Dina received in pounds.  
Give your answer correct to 2 decimal places.

Answer £ ..... [2]