

Ratio 2F Assessment

THE ANSWERS

Foundation Level



All questions

Clip	Grade	Title of clip	Question(s)	Marked out of	Score	%
108.	3	Increase/Decrease by a Percentage	1 - 2	5	___	___
109.	3	Percentage Change	3 - 4	7	___	___
110.	3	Reverse Percentage Problems	5 - 6	6	___	___
111.	3	Simple Interest	7 - 8	5	___	___
142.	4	Compound Units	9 - 10	9	___	___
143.	4	Distance-Time Graphs	11	5	___	___
144.	4	Similar Shapes	12 - 13	7	___	___
164.	5	Compound Interest and Depreciation	14 - 15	6	___	___

Out of 50

TOTAL SCORE _____

Final Percentage %

- 1) A television is sold at £799 + VAT.
VAT is at 20%.
What is the total cost of the television?

£ 958.80

2

- 2) Tiles cost £1.65 each.
Tiles4u offers “30% off when you spend over £200”.
How much will it cost to buy 150 tiles?

£ 173.25

3

- 3) A plane increases its cruising speed from 400 mph to 550 mph.
Work out the percentage speed increase.

37.5 %

3

- 4) Harry made 75 mince pies for the school fair.
He sold 80% of those at 80p each and the remaining 20% at “3 for £2.00”
The 75 mince pies cost him £35 to make.
Work out his percentage profit (to 1 d.p.).

65.7 %

4

- 5) In a sale, prices are reduced by 12%.
Hani bought a pair of boots for the sale price of £61.60
What was the original price of the boots?

£ 70

3

- 6) Jane was paid £154 this week.
This is a 10% increase from last week.
How much was she paid last week?

£ 140

3

- 7) Fran has £350 in her savings account.
3% simple interest is paid each year.
How much interest will she earn in 5 years?

£ 52.50

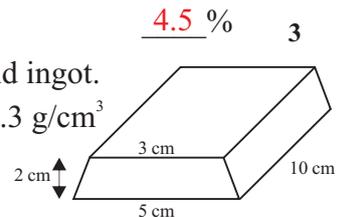
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- 8) Ellie invested £900 in the bank for 4 years.
She earned £162 simple interest.
What was the simple interest rate per annum?

4.5 %

3

- 9) The diagram shows a gold ingot.
The density of gold is 19.3 g/cm^3



Calculate the mass of the ingot in kg.

1.544 kg

4

- 10) a) A motorcycle travels 90 km in $1\frac{1}{2}$ hours.
Work out its average speed in km/h.

60 km/h

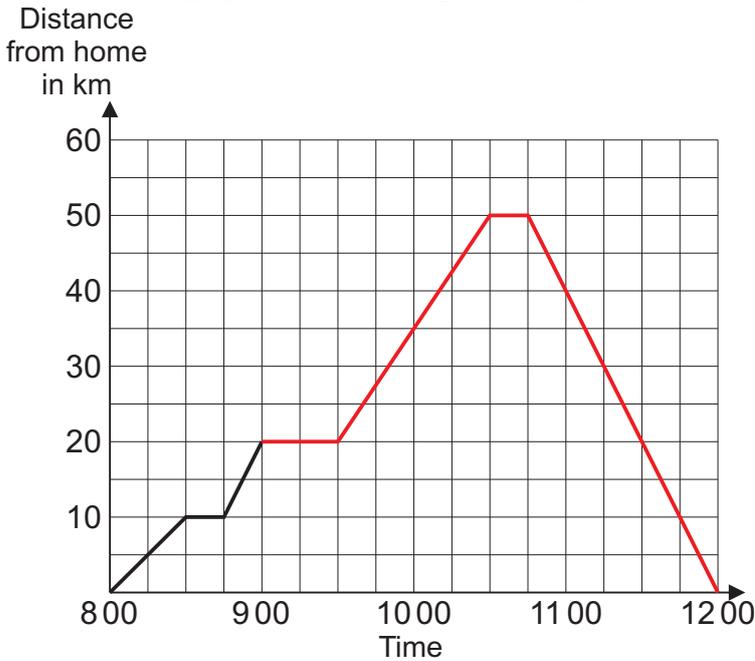
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- b) A car travels at an average speed of 50 mph for 30 mins and then 70 mph for 2 hours.
Work out the average speed of the car (mph) over the whole journey.

66 mph

3

- 11) Phil sets off from home on a bike ride.
The graph below shows part of his journey.



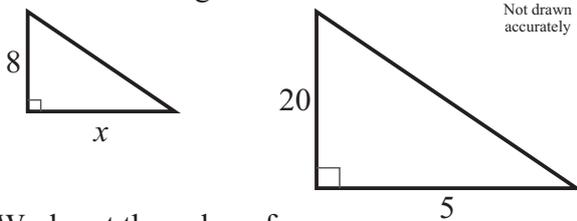
- a) Work out Phil's average speed between 8 am and 9 am.

20 km/h 1

At 9 am, Phil stops for a 30 mins break. He then cycles a further 30 km away from home in 1 hr. After another 15 mins break, he finally cycles back home at an average speed of 40 km/h.

- b) Complete the distance/time graph. 4

- 12) These two triangles are similar.



Work out the value of x .

$x =$ 2 2

- 13) a) Work out the length AE .

10 cm 2

- b) Work out the perimeter of trapezium $ABDE$.

30 cm 3

- 14) Eve invests £3 000 at 3.6% compound interest per annum.

Work out the value of the investment after 5 years.

£3580.31 3

- 15) A £55 000 car depreciates at the rate of 18% each year.

How much would it be worth after 10 years?

£7559.64 3