Ratio 2F Assessment

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?

£_____ **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?

£_____ **3**

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

_____% **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.).

_____% **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?

£_____ **3**

6) Jane was paid £154 this week.
This is a 10% increase from last week.

How much was she paid last week?

£_____ **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?

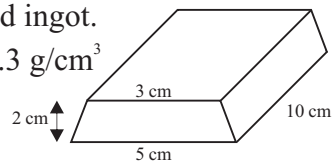
£_____ **2**

8) Ellie invested £900 in the bank for 4 years.
She earned £162 simple interest.

What was the simple interest rate per annum?

_____% **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.

_____kg **4**

10) a) A motorcycle travels 90 km in 1½ hours.

Work out its average speed in km/h.

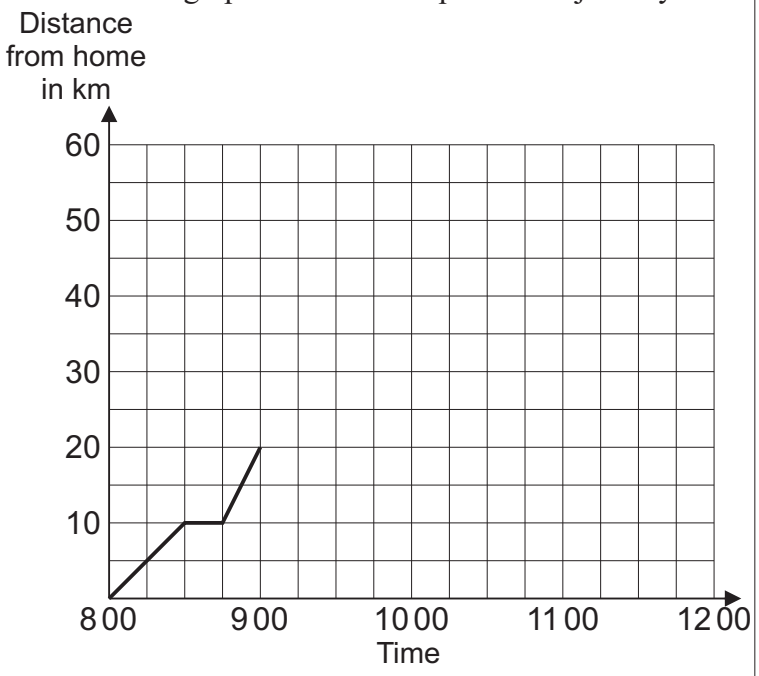
_____km/h **2**

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.

_____mph **3**

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



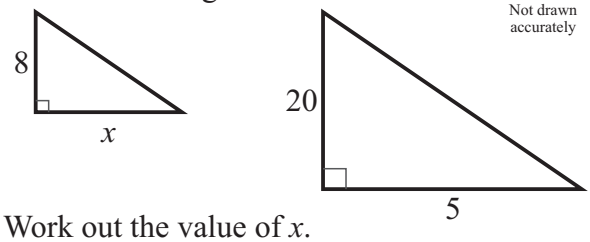
a) Work out Phil's average speed between 8 am and 9 am.

_____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**

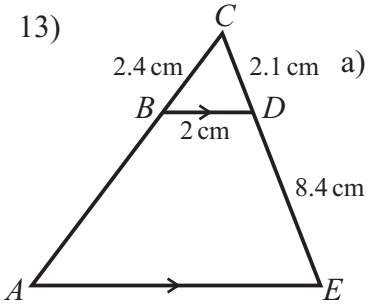
12) These two triangles are similar.



Work out the value of x.

x = _____ **2**

13)



a) Work out the length AE.

_____cm **2**

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

_____cm **3**

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

Work out the value of the investment after 5 years.

£_____ **3**

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

How much would it be worth after 10 years?

£_____ **3**