

## Ten Minute Mental Maths Test 1 Answers

1) 2:3

Step 1 – Put the totals for each gender into a ratio

10:15

Step 2 – Simplify the ratio by dividing by the lowest common denominator

Lowest common denominator = 5

$10/5 : 15/5$

This ratio simplifies to 2:3

2) £49.95

Calculate 90% of £55.50

$£55.50 \times 90/100 = £49.95$

3) 09:15 hrs

Step 1 – Calculate the total length of the 3 classes

$65 \times 3 = 195$  minutes

Step 2 – Calculate this in hours

$195/60 = 3$  hours and 15 mins

Step 3 – Work backwards by deducting 3 hours and 15 mins from 12:30

1230 hrs - 3 hours and 15 mins = 0915 hrs



4) 15 minutes

Apply the equation  $Speed = Distance/Time$

$$5\text{km/h} = 1.25\text{km}/\text{time}$$

$$\text{Time} = 1.25/5 = \frac{1}{4} \text{ of an hour}$$

$$\frac{1}{4} \text{ of an hour} = 15 \text{ minutes}$$

5) 9

Step 1 – Calculate the sum of the scores

$$6 + 8 + 9 + 10 + 12 + 10 + 8 = 63$$

Step 2 – Calculate the mean by dividing this sum by the number of pupil scores

$$63/7 = 9$$

6) 7.2 Euros

Apply the exchange rate

$$6 \times 1.2 = 7.2 \text{ Euros}$$

7) 8 boys, 12 girls

Step 1 – Calculate how many girls

$$20 \times \frac{3}{5} = 12 \text{ girls}$$

Step 2 – Calculate how many boys

$$20 - 12 = 8 \text{ boys}$$



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8) £44.97

Calculate the cost for 3 sets of trousers

$$£14.99 \times 3 = £44.97$$

9) 1505 hrs

Add on 40 minutes to 1425 hrs

$$1425 \text{ hrs} + 40 \text{ minutes} = 1465 \text{ hrs}$$

However...

...a new hour starts after 60 minutes. Thus the delayed time is 1505 hrs

10) 15

Calculate the middle “median” value by putting the scores in order

5, 9, 11, 14, 15, 16, 17, 18, 20

The middle score when there are 9 scores is the 5<sup>th</sup> score i.e. 15

11) £157.50

Step 1 – Calculate the cost per pupil

$$5\text{p} \times 50 = £2.50$$

Step 2 – Multiply the cost per pupil by the number of pupils

$$£2.50 \times 63 = £157.50$$



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12) 64%

$$100 \times 16/25 = 64\%$$

13) 1/12

14) £2.25

Step 1 – Calculate the total cost

$$(75 \times 5) + (50 \times 8) = 775\text{p} = \text{£}7.75$$

Step 2 – Deduct the total cost from £10.00

$$\text{£}10.00 - \text{£}7.75 = \text{£}2.25$$

15) 1.6



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