




Countdown to your final Maths exam ...

Crossover ... Part 5 (2020)

	Marks	Actual	  
Q1. Fraction to a decimal	1		
Q2. Fractions on a grid	3		
Q3. Fraction to a percentage	1		
Q4. Ratio in context (Clip 16/17)	4		
Q5. Fractions (Clip 14/15)	2		
Q6. Ratio (Clip 16/17)	4		
Q7. Fractions (Clip 14/15)	3		
Q8. Ratio (Clip 16/17)	3		
Q9. Fractions (Clip 14/15)	3		
Q10. Fractions (Clip 14/15)	4		
Q11. Ratio (Clip 16/17)	3		
Q12. Ratio (Clip 16/17)	4		
Q13. Ratio (Clip 16/17)	5		
	40		

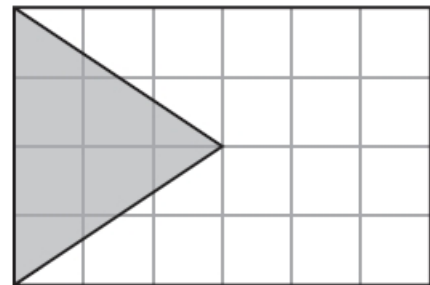
NON-CALCULATOR UNLESS SPECIFIED



Questions

Q1. Write $\frac{7}{100}$ as a decimal.

Q2. The diagram shows a flag drawn on a grid of squares.



(1)

(a) Colin says that $\frac{1}{4}$ of the flag is shaded.
Colin is right. Explain why.

(2)

(b) What percentage of the flag is **not** shaded?

(1)

Q3. Write $\frac{4}{5}$ as a percentage.

(1)

Q4. 140 children will be at a school sports day.
Lily is going to give a cup of orange drink to each of the 140 children.
She is going to put 200 millilitres of orange drink in each cup.

The orange drink is made from orange squash and water.
The orange squash and water are mixed in the ratio 1 : 9 by volume.

Orange squash is sold in bottles containing 750 millilitres.

Work out how many bottles of orange squash Lily needs to buy.
You must show all your working.

(4)

Q5. Work out $\frac{1}{3} + \frac{5}{9}$

(2)

Q6. Ewen has 48 white tiles and 16 blue tiles.

(a) Write down the ratio of the number of white tiles to the number of blue tiles.
Give your ratio in its simplest form.

(2)

The cost of each white tile was £2 The cost of each blue tile was £4

(b) Work out the ratio of the total cost of the white tiles to the total cost of the blue tiles.

(2)

Q7. Work out $3\frac{1}{3} \div 4\frac{3}{4}$

(2)

Q8. A pile of sand has a weight of 60 kg.
The sand is put into a small bag, a medium bag and a large bag in the ratio 2 : 3 : 7
Work out the weight of sand in each bag.

(3)

Q9. Sam has £480 He spends $\frac{1}{4}$ of the £480
Work out how much money Sam has left.

(3)

Q10. There are 700 students in a college.
All of the students are 16 years old, 17 years old or 18 years old.

$\frac{1}{10}$ of the students are 16 years old.

$\frac{1}{5}$ of the students are 18 years old.

Work out how many of the students are 17 years old.

(4)

Q11. Pat and Julie share some money in the ratio 2 : 5
Julie gets £45 more than Pat.
How much money did Pat get?

(3)

Q12. There are 20 red counters and 15 blue counters in a bag.
(a) Write down the ratio of the number of red counters to the number of blue counters.
Give your ratio in its simplest form.

(2)

There are only red counters and blue counters in the bag.
x red counters are taken from the bag.
y blue counters are taken from the bag.

(b) Write down an expression, in terms of x and y, for the total number of counters now in the bag.

(2)

Q13. There are some red counters and some yellow counters in a bag in the ratio 1 : 5

(a) What fraction of the counters in the bag are red?

(1)

There are 20 yellow counters in the bag.

(b) Work out the number of red counters in the bag.

(2)

Janet puts some more red counters into the bag.

The ratio of the number of red counters to the number of yellow counters is now 1 : 2

(c) How many red counters does Janet put into the bag?

(2)