

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Pages	Mark
2 - 3	
4 - 5	
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10 - 11	
12 - 13	
TOTAL	

In the style of



General Certificate of Secondary Education  
Foundation Tier

# Mathematics

# 43602F

Past Paper Type Questions by Topic

## Fractions, Decimals and Percentages

# F

For this paper you must have:

- a calculator
- mathematical instruments.



### Time allowed

- 1 hour

### Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is.
- The quality of your written communication is specifically assessed in some questions. These questions are indicated with an asterisk (\*)
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer booklet.

### Advice

- In all calculations, show clearly how you work out your answer.

1. Terry owns a business that makes £3000 per month.

His profits rise by 6%.

Work out how much he now makes.

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Answer .....

**(3)**



**2(a)**

David wins a race.

His time is recorded as 50.36 seconds.

Ron comes second in the race.

His time is three-hundredths of a second slower.

Work out Ron's time.

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*(2 marks)*

**2(b)**

Round David's time of 50.36 seconds to 1 decimal place.

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*(1 mark)*



3

Write a number in each box to make correct statements.

3 (a)

$$50\% = \frac{\square}{2}$$

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(1 mark)

3 (b)

$$0.9 = \frac{\square}{10}$$

.....

(1 mark)

3 (c)

$$\frac{1}{3} = \frac{\square}{6}$$

.....

(1 mark)

3 (d)

$$\frac{3}{15} = \frac{\square}{5}$$

.....

(1 mark)



\*4 Two banks calculate the yearly interest they pay customers.

**Lancashire Bank**  
4% of the total that you invest  
  
For example: Invest  
£700 Interest = 4% of  
£700

**Cheshire Bank**  
  
1% of the first £300 that you invest 6% of  
amounts over £300 that you invest  
  
For example: Invest £700  
Interest = 1% of £300 + 6% of £400

Tara has £500 to invest for one year.

Work out which bank will pay her more  
interest. State how much **extra** interest she  
will earn.

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Bank .....

Extra Interest £.....

(5 marks)



5 There are 160 people on a plane. 20% are children. One-half are men. The rest are women.

How many women are on the plane?

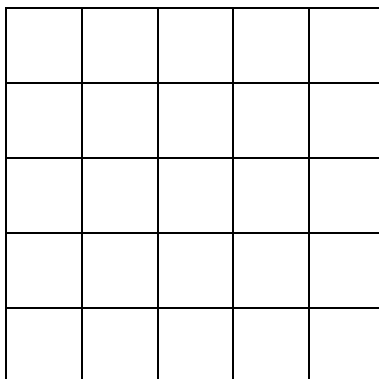
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Answer .....

(4 marks)

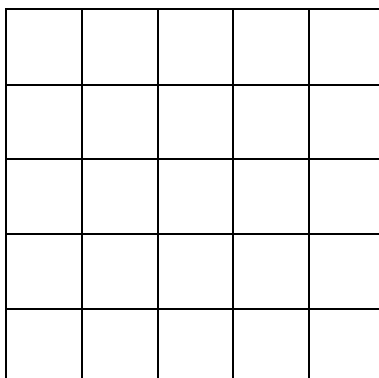


**6 (a)** Shade  $\frac{7}{25}$  of this square grid.



(1 mark)

**6 (b)** Shade  $\frac{3}{5}$  of this square grid.



(1 mark)

**6 (c)** Use your answers to part (a) and part (b) to write down the answer to  $\frac{3}{5} - \frac{7}{25}$

Answer .....

(1 mark)

**6 (d)** Work out  $\frac{2}{3}$  of 27

.....  
.....

Answer.....

(2 marks)



\*6 (a) Here are five numbers.

3            13            20            43            81

Make a fraction with a value between 3 and 4.

Use one of the numbers for the numerator and one of the numbers for the denominator.

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Answer .....

(2 marks)

6 (b) Which is bigger  $\frac{13}{3}$  or  $\frac{81}{20}$  ?

You **must** show your working.

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Answer .....

(3 marks)



**7 (a)** Work out  $\frac{1}{4} + \frac{1}{3}$

You may use this grid to help you.


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Answer .....

(2 marks)

**7 (b)** There are 24 people in a bus.  
One-third of them are men who wear glasses.  
One-quarter of them are women.  
How many men do not wear glasses?

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Answer .....

(2 marks)



\*8 Helen is going on holiday to Spain.

8 (a) She changes £2000 into Euros.

The exchange rate is £1 = 1.17 Euros

How many Euros does she receive?

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.....

Answer ..... Euros (2 marks)

8 (b) In Spain, she changes an extra £100 into Euros.

The exchange rate is 1 Euro = £0.80

How many Euros does she receive?

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Answer ..... Euros (2 marks)

8 (c) Helen is on holiday for one week.

She wants to hire a car for **at least** 5 days.

Three car hire firms advertise their charges.

	Fixed amount (Euros)	Additional cost per day (Euros)
<b>Eurodrive</b>	100	14
<b>Coolcar</b>	60	20
<b>Zedcars</b>	0	35

Work out the cheapest firm for Helen for different numbers of days of car hire. Show full details of your working and conclusions.

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(6 marks)



**9** Work out  $8^2 \div 4^3$

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Answer ..... (2 marks)

**10** You are given that  $32.7 \times 26 = 850.2$

**10 (a)** Write down the value of  $327 \times 26$

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Answer ..... (1 mark)

**10 (b)** Write down the value of  $85.02 \div 26$

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Answer ..... (1 mark)

**10 (c)** Work out the value of  $32.7 \times 27$

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Answer ..... (2 marks)



**11** Two adults and 18 children go to the circus.  
The cost of a child ticket is half of the cost of an adult ticket. The total cost of the tickets is £132.

Work out the cost of one child ticket.

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Answer £ ..... (3 marks)

**12** What fraction is half way between  $\frac{1}{4}$  and  $\frac{1}{8}$ ?

Give your answer as a fraction in its simplest form.

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Answer ..... (3 marks)

**13** Divide £600 in the ratio 9 : 6 : 5

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Answer £ ..... : £ ..... : £ ..... (3 marks)



**\*14** Sophie sells jars of honey in her shop.  
She has 80 jars to sell at £3 each.  
She sells 50 jars and then reduces the price by 40%. Sophie  
then sells the remaining jars at the reduced price.

It costs her £95 to get the jars of honey.  
Her target is to make a profit of at least £100.

Does she meet her target?  
You **must** show your working.

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(5 marks)



15 (a) (i) Write  $\frac{1}{4}$  as a percentage.

Answer ..... % (1 mark)

15 (a) (ii) Write 30% as a decimal.

Answer ..... (1 mark)

15 (a) (iii) Write  $\frac{1}{4}$ , 30% and 0.2 in order with the smallest first.

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.....

Answer ..... (1 mark)

15 (b) Complete the following.

15 (b) (i)  $\frac{2}{3} = \frac{\square}{18}$

(1 mark)

15 (b) (ii)  $\frac{\square}{4} = \frac{15}{20}$

(1 mark)

15 (c) Work out  $\frac{3}{8}$  as a decimal.

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Answer ..... (2 marks)



**16 (a)** Work out the difference between

10% of 350      and       $\frac{1}{2}$  of 76

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Answer .....

(3 marks)

**16 (b)** Write in order of size:

$\frac{1}{4}$       0.205      0.2

Start with the smallest.

You **must** show your working.

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Smallest .....

.....

Largest .....

(2 marks)



**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**

