

Examination practice questions

You should have:

A ruler, protractor, compasses, a pen, pencil, eraser, calculator.
For some questions, you may need tracing paper.

Instructions

- Use **black** ink or ball-point pen.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

Information

- The marks for each question are shown in brackets.
- If the number of marks for two similar questions isn't the same, this is likely due to them being modelled on different specifications. In this case, it is worth considering both mark schemes.
- Use the number of marks for each question as a guide as to how much time to spend on each question. As a rough guide, you can multiply the number of marks by 1.2 to see how many minutes you should spend on a question.
- Questions will generally get more challenging as the document progresses. Some of the latter questions will go beyond the core grade level for this topic.

Advice

- Read each question carefully before you start to answer it.
- Don't forget to have fun.
- Check your answers at the end.

Q1.

AtoZrevision.com

Write in its simplest form the ratio 12 : 15

4 : 5

(1 mark)

Q2.

AtoZrevision.com

Write in its simplest form the ratio 12 : 15

2 : 5

(1 mark)

Q3.

AtoZrevision.com

Write 45 : 15 as a ratio in its simplest form.

3 : 1

(1 mark)

Q4.

AtoZrevision.com

In a year group there are 100 boys and 120 girls.

Write as a ratio the number of boys to the number of girls.
Give your answer in its simplest form.

M, 100 : 120

A,
5 : 6

(2 marks)

Q5.

AtoZrevision.com

Write £4.20 : £1.40 : £7 in its simplest form.

420 : 140 : 700 M,
300 : 100 : 500

A,
3 : 1 : 5

(2 marks)

Q6.

AtoZrevision.com

In one match, Sevilla played Valencia.

In the match, Sevilla had 8 shots on target and Valencia had 12 shots on target.

Write the ratio of their shots on target in its simplest form.

2:3
.....

(1 mark)

Q7.

AtoZrevision.com

There are some sweets in a bag.

18 of the sweets are toffees.

12 of the sweets are mints.

Write down the ratio of the number of toffees to the number of mints.

Give your ratio in its simplest form.

18:12 m,
3:2

A,
3:2
.....

(2 marks)

Q8.

AtoZrevision.com

Musa buys

1260 apples

280 bananas

Write down the ratio of the number of apples that Musa buys to the number of bananas that he buys.

Give your ratio in its simplest form.

1260:280 m,
9:2

A,
9:2
.....

(2 marks)

120 people were surveyed. They were each asked which is their favourite pet: dog, cat or fish. The numbers who answered dog, cat and fish were in the ratio 63:39:18.

Express this ratio in its simplest terms.

21:13:6

(1 mark)

Ben and Shadab are making pancakes using the ingredients below.

Ingredients to make 12 pancakes
75ml water
200ml milk
100g flour
50g butter
2 eggs

The ratio of the amount of water to the amount of milk needed is 75 : 200.

Write this ratio in its simplest form.

75:200

3:8

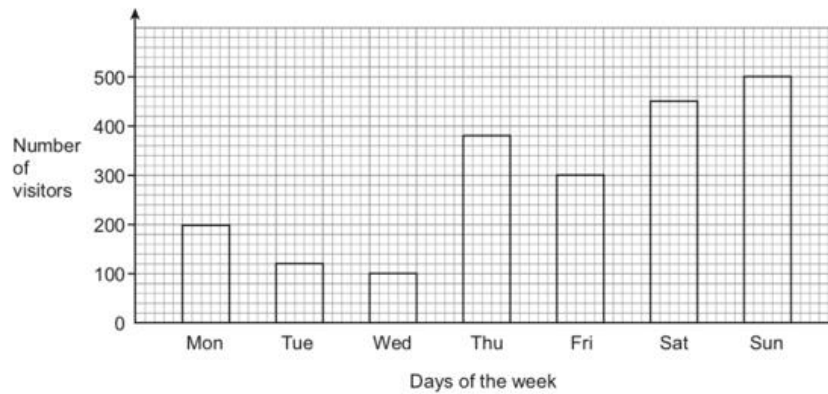
3:8

A.

M, F on either side to simplify.

(2 marks)

The bar chart shows the number of visitors to a zoo in one week.



Write as a ratio in its simplest form:

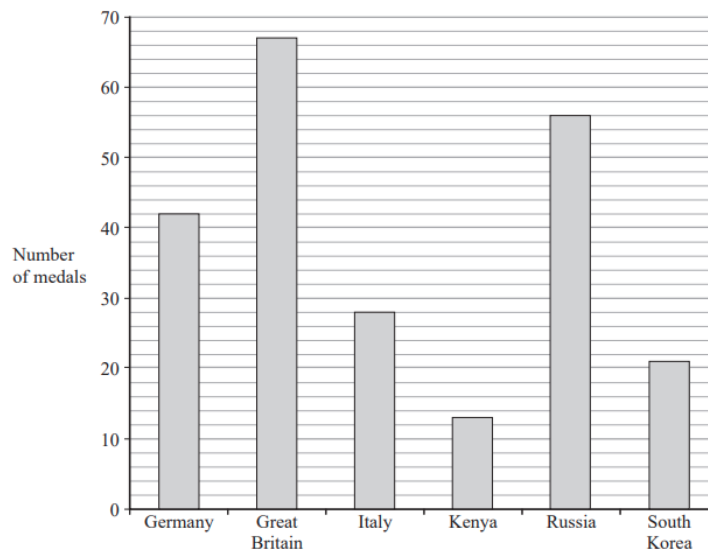
the number of visitors on Wednesday : the number of visitors on Friday

M. Fr any ratio from the table.

A1
1:3

(2 marks)

The bar chart gives information about the total number of medals won by each of six countries at the 2016 Olympic Games.








Write down the ratio of the total number of medals won by Russia to the total number of medals won by Germany. Give your ratio in its simplest form.

M. Fr any ratio from the table.

A1
4:3

(2 marks)

The pictogram shows information about the number of emails Sophie received on each of four days.

Monday		Key:  represents: 4 emails
Tuesday		
Wednesday		
Thursday		
Friday		

Find the ratio of the number of emails Sophie received on Monday to the number of emails Sophie received on Tuesday.

Give your ratio in its simplest form.

A. 4:3 - ratio from the table

A1
 $8:5$

(2 marks)

There are only red sweets and yellow sweets in a bag.

$\frac{2}{5}$ of the sweets are red.

Write down the ratio of red sweets to yellow sweets.

$2:3$

(1 mark)

Annie and Lily share some money in the ratio 4:3

What fraction of the money does Lily get?

$\frac{3}{7}$

(1 mark)

Q16.

AtoZrevision.com

There are only green beads and red beads in a bag.

The ratio of the number of green beads to the number of red beads is 5 : 9

What fraction of the beads in the bag are green beads?

$$\frac{5}{14}$$

(1 mark)

Q17.

AtoZrevision.com

There are only blue bricks and white bricks in a box.

The ratio of the number of blue bricks to the number of white bricks is 3:7

What fraction of the bricks in the box are blue bricks?

$$\frac{3}{10}$$

(1 mark)

Q18.

AtoZrevision.com

Azmol, Ryan and Kim each played a game.

Azmol's score was four times Ryan's score.

Kim's score was half of Azmol's score.

Write down the ratio of Azmol's score to Ryan's score to Kim's score in its simplest form.

M, for an attempt to
express the statements as
a ratio.

$$A_1$$
$$4:1:2$$

(2 marks)

QUESTIONS FROM MATHEMATICAL COMPETITIONS

Q19.

AtoZrevision.com

Three-quarters of the junior members of a tennis club are boys and the rest are girls. What is the ratio of boys to girls among these members?

B:1

$\frac{3}{4}$ Boys $\frac{1}{4}$ Girls
 \therefore Triple the num of boys.