

Year 8 Class 10 questions

Q1

Simplify fully.

$$72 : 16$$

$$\square : \square$$

Q2

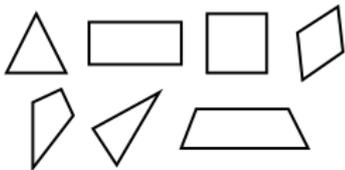
Complete the simplified ratio.

$$2.5 \text{ hours} : 45 \text{ min}$$

$$\square : \square$$

Q3

Find the ratio of triangles to quadrilaterals.



$$\square : \square$$

Q4

$$4 : 3 : 6$$

$$\square : \square : 18$$

Q5

Damper is made by mixing flour and water in the ratio 4 : 1. How much flour should be mixed with 2.5 cups of water?

$$\square \text{ cups}$$

Q6

Find the real distance between towns A and B measuring 11.2 cm apart on a map with a scale of 1 : 100 000.

$$\text{Distance} = \square \text{ km}$$

Q7

Simplify fully.

$$180 : 160$$

$$\square : \square$$

Q8

Simplify fully.

$$90 : 240$$

$$\square : \square$$

Q9

Complete the simplified ratio.

$$3.75 : 0.06$$

$$\square : \square$$

Q10

Complete the simplified ratio.

$$0.2 : 3.75$$

$$\square : \square$$

Q11

There are 180 mandarins and 320 figs. Write the simple ratio of:

mandarins : figs

$$\square : \square$$

figs : mandarins

$$\square : \square$$

mandarins : total number of pieces of fruit

$$\square : \square$$

Q12

Orla has 4 dogs, 3 cats and 5 birds.

Write the simple ratio of:

cats : birds

:

birds : dogs

:

dogs : total number of pets

:

Q13

5 : 12

: 78

Q14

5 : 21

33 :

Q15

Daisy is training for a race. She aims to run and ride in the ratio 3 : 5.

If she spends 30 minutes running, how long should she spend riding?

minutes

Q16

Ruby and Finn share a packet of biscuits in the ratio 6 : 7.

If Ruby has 30 biscuits, how many biscuits are there altogether?

Q17

A scale of 1 : 1000 is the same as

1 cm : 100 m

1 cm : 10 m

1 cm : 1 m

1 cm : 100 cm

Q18

A scale of 1 : 10 000 is the same as

1 mm : 100 000

1 mm : 10 m

1 mm : 10 000

1 mm : 1 m

Q19

Simplify fully.

140 : 180 : 100

: :

Q20

Simplify fully.

240 : 90 : 150

: :

Q21

Complete the simplified ratio.

0.3 : 0.6 : 1.5

: :

Q22

Complete the simplified ratio.

3 : 0.48 : 4

: :

Q23

A chef combines 350 mL of oil, 200 mL of vinegar and 75 mL of lemon juice.

Write the simple ratio of:

vinegar : lemon juice lemon juice : oil

:

:

oil : total mixture

:

vinegar : oil : lemon juice

: :

What fraction of the mixture is vinegar?

$\frac{3}{25}$ $\frac{14}{25}$ $\frac{8}{25}$ $\frac{8}{14}$

Q24

Jake has 120 marbles. 90 of them are clear, 15 of them are black and 15 the rest are coloured. Write the simple ratio of:

black : coloured coloured : clear

:

:

clear : total number of marbles

:

coloured : black : clear

: :

What fraction of the marbles are black?

$\frac{1}{8}$ $\frac{1}{6}$ $\frac{3}{4}$ $\frac{1}{4}$

Q25

9 : 4 : 3

: 45 :

Q26

4 : 9 : 7

115 : :

Q27

In a class the ratio of boys to girls is 7:6. There are 12 girls.

Find the difference between the number of boys and girls.

Q28

In a display room the model aeroplanes to model cars is 5:3. There are 21 model cars on display.

Find the difference between the number of model cars and model aeroplanes.

Q29

A map uses a scale 5 cm represents 1.2 km. What distance is represented by 1 mm on the map?

m

Q30

A model car uses a scale 1 cm represents 42 cm. What length is represented by 15 cm on the model car?

m