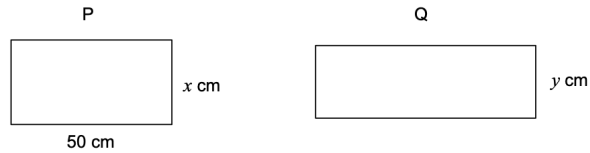


Q1. (2017)

- 17 P is a rectangle with length 50 cm and width x cm
Q is a rectangle with width y cm

Not drawn
accurately



The length of Q is 20% **more** than the length of P.

The area of Q is 10% **less** than the area of P.

Work out the ratio $x : y$

Give your answer in its simplest form.

[4 marks]

Q2. (2017)

- 19 Rana sells 192 cakes in the ratio small : medium : large = 7 : 6 : 11
The profit for one medium cake is twice the profit for one small cake.
The profit for one large cake is three times the profit for one small cake.
Her total profit is £532.48
Work out the profit for one small cake.

[5 marks]

Q3. (2018)

- 3 y is $1\frac{1}{2}$ times x .

Circle the ratio that is equivalent to $y : x$

[1 mark]

2 : 5 5 : 2 3 : 2 2 : 3

Q4. (2018)

- 8 Theo starts with savings of £18
James starts with no savings.

Each week from now,

Theo will save £4.50 and James will save £4

In how many weeks will Theo and James have savings in the ratio 15 : 8 ?

[3 marks]

Answer _____

Q5. (2019)

- 3 $2a$ is five times bigger than b .

Circle the ratio $a : b$

[1 mark]

$10 : 1$

$1 : 10$

$5 : 2$

$2 : 5$

Q6. (2019)

- 11 Joe and Kyle share an amount of money in the ratio $7 : n$

Joe gets 35% of the money.

Work out the value of n .

[2 marks]

Q7. (2019)

- 18 In a bag there are blue discs, green discs and white discs.

There are four times as many blue discs as green discs.

number of blue discs : number of white discs = $3 : 5$

One disc is selected at random.

Work out the probability that the disc is either blue or white.

[3 marks]

Q8. (2020)

- 1 Which of these is a correct identity?

Circle your answer.

[1 mark]

$x + 4x \equiv 5x$

$6x \equiv 18$

$2x + 1 \equiv 7$

$7x + 9 \equiv x$

Q9. (2020)

- 8 At a party there are 90 people.

48 are women and 42 are men.

Some women leave.

Some men arrive.

The ratio of women to men is now $10 : 11$

Are there now more than 90 people at the party?

Tick **one** box.

☐

Yes

☐

No

☐

Cannot tell

Show working to support your answer.

[2 marks]

Q10. (2021)

- 2 A is half of B .

Work out the ratio $A : B$

Circle your answer.

[1 mark]

$1 : 2$

$2 : 1$

$1 : 3$

$3 : 1$

Q11. (2022)

- 16** Amol owns a sandwich shop.
The shop is open from Monday to Saturday.
In June, Amol sold 3000 sandwiches.

(A)

- 16 (a)** Amol wants to work out the mean number of sandwiches he sold per day in June.
His method is $3000 \div 30 = 100$
Make **one** criticism of Amol's method.

[1 mark]

(B)

- 16 (b)** Amol received £6660 from selling the 3000 sandwiches in June.
The numbers of sandwiches sold were in the ratio
meat : cheese : vegan = 9 : 4 : 7
The price of a meat sandwich is £2.39
The price of a cheese sandwich is £1.89
Work out the price of a vegan sandwich.

[4 marks]

Q12. (2023)

- 1** Write $30 : 12$ in the form $n : 1$

[1 mark]

Answer _____ : 1

Q13. (2024)

- 21** People in a stadium are in the North Stand, East Stand, South Stand or West Stand.
Of the people in the stadium,
 $\frac{1}{4}$ are in the North Stand
 $\frac{3}{10}$ are in the East Stand
number in South Stand : number in West Stand = 2 : 7

There are 4480 people in the West Stand.

How many people are in the stadium?

[4 marks]