

Q1. (2017)

16 The counters in a bag are red or blue.

One fifth of the counters are red.

Work out the ratio red counters : blue counters

Circle your answer.

[1 mark]

1 : 4

1 : 5

4 : 5

1 : 6

Q2. (2017)

19 Ben and Katy throw darts at a target.

Ben's ratio of hits to misses is 5 : 1

Katy's ratio of hits to misses is 3 : 1

Ben says,

"5 is bigger than 3, so I must have more hits than Katy."

Give an example to show that this might **not** be true.

[2 marks]

Q3. (2018)

20 $a : b = 5 : 2$

How many times larger is a than b ?

Circle your answer.

[1 mark]

0.4

1.5

2.5

3

Q4. (2019)

25 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]

Q5. (2020)

1 Circle the ratio that is the same as 3 : 4

[1 mark]

6 : 7

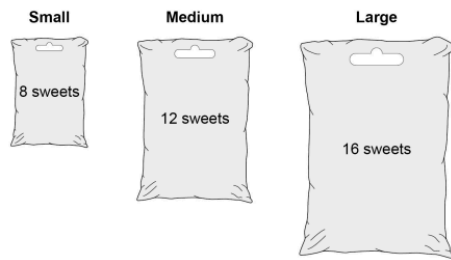
6 : 8

6 : 9

6 : 16

Q6. (2020)

- 21 Jill puts 440 sweets into small bags, medium bags and large bags.



She uses

30 small bags

twice as many medium bags as large bags.

There are no sweets left over.

For the number of bags, work out the ratio small : medium : large

[4 marks]

Answer _____ : _____ : _____

Q7. (2020)

- 27 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]

Q8. (2021)

- 17 Harry and his sister Jess have some money in the ratio Harry : Jess = 1 : 4
 Harry has £7.35
 They pay £16.99 for a present for a friend.

Harry uses $\frac{1}{3}$ of his money.

Jess pays the rest.

How much money does Jess have left?

[4 marks]

Answer £ _____

Q9. (2022)

- 24 $4y = 5x$

Which statement is correct?

Tick **one** box.

[1 mark]

☐

y is 80% of x

☐

y is 125% of x

☐

x is 20% of y

☐

x is 400% of y

Q10. (2022)

- 26 Harry and Ellie each bought a printer and a hard drive.
 Here is some information about how much they paid.

	Printer	Hard drive
Harry	£80	£25
Ellie	10% less than Harry	20% more than Harry

Ellie says,

"In total, I paid more than Harry because 20% is greater than 10%"

Is she correct?

Tick a box.

Yes

☐

No

☐

Show calculations to support your answer.

[2 marks]

Q11. (2023)

- 5 (b) Two shops sell bottles of apple juice.

Shop X
pack of 4 bottles
Was £2.50
Now 10% off

Shop Z
pack of 12 bottles
£7

At which shop is it cheaper to buy 24 bottles?

Show working to support your answer.

[4 marks]

Q12. (2023)

- 10 (b) There are green pens and red pens in the box.

The ratio of green : red is 4 : 3

What fraction of the pens are green?

[1 mark]

Q13. (2023)

- 12 Kai says that 3 : 2 is an equivalent ratio to 9 : 6
Jo says that 1.5 : 1 is an equivalent ratio to 9 : 6

Who is correct?

Tick **one** box.

☐

Both of them

☐

Kai only

☐

Jo only

☐

Neither of them

Give reasons for your answer.

[2 marks]

Q14. (2024)

- 12 A code has five **different** digits written in order, starting with the smallest.
The last digit is the **only** square number.
The middle digit is the **only** even number.

Work out the code.

[3 marks]

Answer _____