Maths

Home Learning

Year 6 Spring 1 Quiz

Please complete this booklet independently.

This quiz is designed to see your understanding of content that has been covered this half term with some arithmetic style questions (based on your year group).

WB 08.02.2021

79 x 7 =

1067 - 100 =

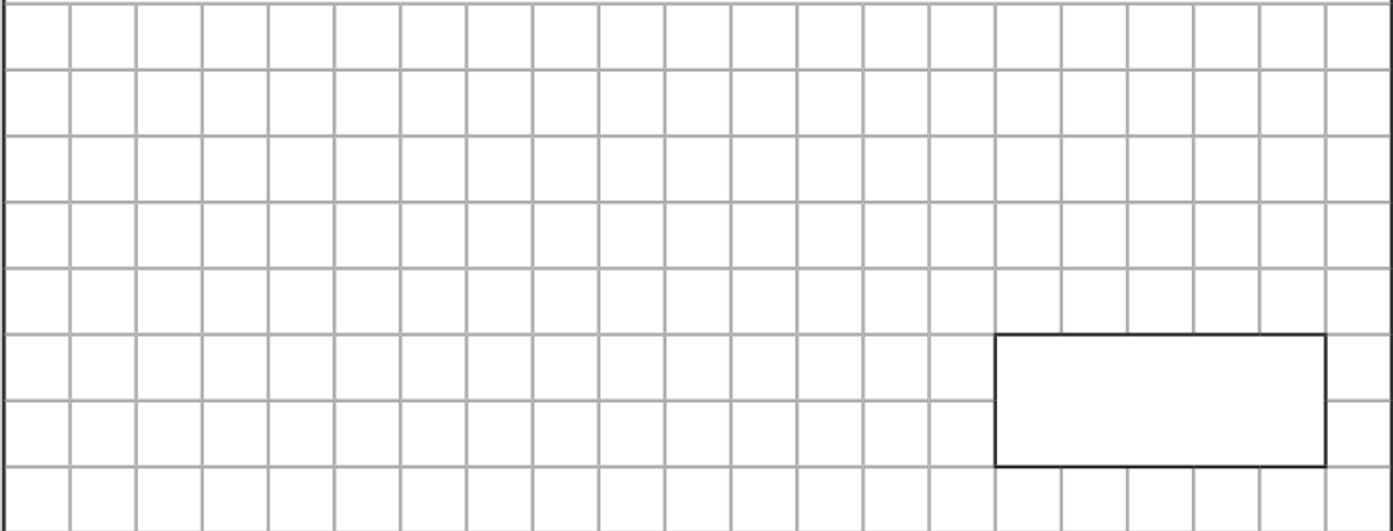7.1 + 0.2 =

2687 + 698 =

$\dfrac{7}{9} - \dfrac{2}{9} =$

232 x 0 =

$5^2 + 2^2 =$

2.172 x 1000 =

[ ] = 8825 + 7061

10 x 1000 =

307 - 24.7 =

20% of 1800 =

7045 ÷ 4 =

57 x 28 =

	5	7
x	2	8

Decimals

1 Donna makes a number using some counters.

(counters shown: 1, 1, 1, 0.1, 0.1, 0.01, 0.01, 0.01, 0.01, 0.01)
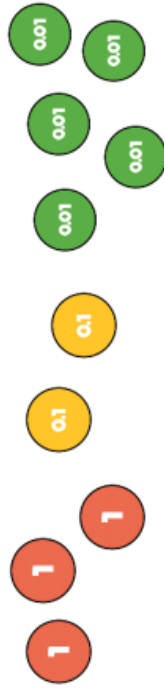
Complete the sentences

There are _____ ones, _____ tenths and _____ hundredths.

[1 mark]

Donna has made the number _____

[1 mark]

2 In the number 32.8 which digit is in the ones place?

_____

[2 marks]

In the number 32.8 which digit is in the tenths place?

_____

[1 mark]

3 What is 1.603 + 5 hundredths

_____

[1 mark]

4 Filip writes a number in a place value grid.

H	T	O	Tth
		0 .	9
		1	

Filip multiplies his number by 10

Write down his answer in the place value grid below.

H	T	O	Tth

[1 mark]

Filip multiplies his starting number by 100

Write down his answer in the place value grid.

H	T	O	Tth

[1 mark]

5 Fill in the missing numbers.

$27 \div 10 = \boxed{}$

$25.9 \times 10 = \boxed{}$

$3.65 \times \boxed{} = 365$

[3 marks]

10 Lisa says that $\frac{23}{50}$ is less than 0.5

Do you agree with Lisa?

Explain your answer.

11 Sally and her friends share 3 chocolate bars.

They each get 0.75 of a chocolate bar.

How many friends did Sally share the chocolate bar with?

12 Bargain Busters sell four cans of soup for £3.76

Cost Cutters sell three cans of soup for £2.85

Which shop sells the cheapest soup?

Explain your answer.

6 Tom travels 2.3 miles to school.

Amy travels 4 times further than Tom.

How far does Amy travel?

_____ miles

7 What is 6.9 divided by 3

8 Match the decimals with the equivalent fraction.

0.25		$\frac{3}{6}$
0.4		$\frac{1}{4}$
0.5		$\frac{2}{5}$

9 A pack of pens costs 3 times as much as a single pen.

Together they cost £7.20

How much does a single pen cost?

£ _____

Percentages

1 Here are some hundred grids.
What percentage of each grid is shaded?

_____ %

_____ %
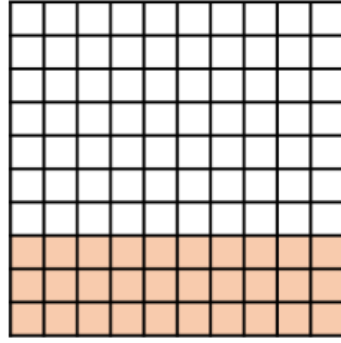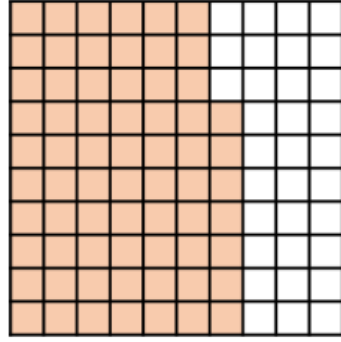
2 marks

2 Shade 12% of the hundred grid.
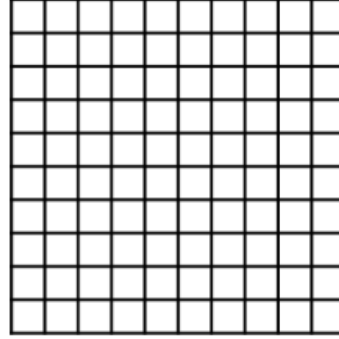
1 mark

3 Use the bar model to help you.

120 kg

25%	25%	25%	25%
50%	50%	50%	
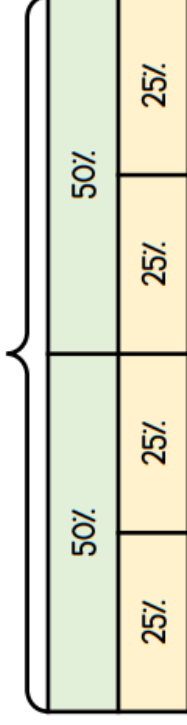
What is 50% of 120 kg?

_____ kg

1 mark

What is 25% of 120 kg?

_____ kg

1 mark

4 Use the bar model to help you.

70

10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
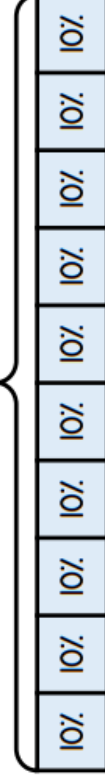
What is 10% of 70?

_____

What is 30% of 70?

_____

What is 90% of 70?

_____

What is 5% of 70?

_____

4 marks

8 Complete the table.

Percentage	Fraction	Decimal
50%	$\frac{1}{2}$	0.5
7%	$\frac{7}{100}$	
	$\frac{1}{5}$	0.2
57%		0.57

2 marks

9 Leona has a large bag of apples.

There are 180 apples in the bag.

She uses $\frac{1}{4}$ of the apples to make some juice.

She uses 20% of the apples to make some pies.

How many apples are left?

_____ apples

2 marks

5 The percentage bar chart shows the colour of counters in a box.

| Blue | Yellow | Red |

0% ———————————— 100%
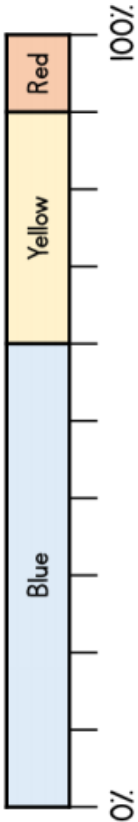
What percentage of the counters in the box are blue?

_____

What percentage of the counters in the box are yellow?

_____

What percentage of the counters in the box are red?

_____

3 marks

6 50% of a number is 32

What is the number?

_____

2 marks

10% of a number is 7.5

What is the number?

_____

2 marks

7 Max has £800 in the bank.

He spends 3% of his money on a new computer game.

How much money does he spend on the computer game?

£ _____

2 marks

1

Use the fraction bars to simplify the fractions.

$$\frac{6}{9} =$$

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

2 marks

2 Max says $\frac{30}{50}$ in its simplest form is $\frac{15}{25}$

Is Max correct?

Yes   No

Explain your answer.

1 mark

3

What number is the arrow pointing to?

1 mark

Draw an arrow to the number that is $\frac{3}{4}$ less than A.

1 mark

What number is $1\frac{1}{2}$ greater than A?

1 mark

4 Tick the statements that are true.

$\frac{3}{5}$ is greater than $\frac{3}{7}$ ☐

$1\frac{3}{8}$ is less than $\frac{7}{8}$ ☐

$\frac{2}{8}$ is equal to $\frac{5}{20}$ ☐

$2\frac{1}{4}$ is greater than $\frac{11}{4}$ ☐

2 marks

5 Write the fractions in order from smallest to largest.
You may use the number line to help you.

$$\frac{3}{4} \quad \frac{5}{8} \quad \frac{3}{8} \quad \frac{1}{16}$$

2 marks

9 Three friends share a chocolate bar.

Laura gets $\frac{3}{9}$, Phil gets $\frac{4}{12}$ and Matt gets $\frac{7}{21}$

Did they share the chocolate bar equally?

Explain your answer.

1 mark

10 A circle has an area of $18\frac{1}{6}$ cm².

Max cuts a triangle from the circle.

The triangle has an area of $5\frac{2}{3}$ cm².

What is the area of the circle that is left?

_____ cm²

2 marks

6 Calculate

$\frac{2}{3} + \frac{1}{9} =$

$\frac{5}{6} - \frac{3}{4} =$

$2\frac{3}{5} + 1\frac{1}{2} =$

3 marks

7 Draw arrows from each fraction to its position on the number line.

0 ———————————— 1

$\frac{36}{48}$ $\frac{33}{66}$ $\frac{29}{29}$

2 marks

8 Jenny reads $\frac{1}{4}$ of her book on Monday.

She reads $\frac{1}{3}$ of the book on Tuesday.

On Wednesday she reads the rest of the book.

What fraction of the book did she read on Wednesday?

_____

2 marks

Year 6

Algebra

1 Here is a function machine.

Input ⟶ **+ 5** ⟶ Output
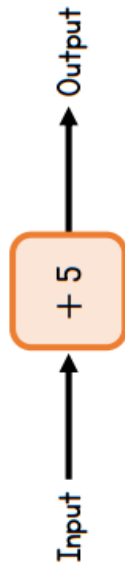
Complete the sentences.

When the input is 7, the output is _____

When the input is _____, the output is 7

2 marks ☐

2 If ⭐ = 6 and 😀 = 8, find the total of each row and column.

⭐	⭐	😀	
😀	♡	😀	
♡	♡	😀	26
♡			30

3 marks ☐

3 c and d represent positive integer variables.

$c + d = 5$

Complete the table to show possible values of c and d.

c	d

2 marks ☐

4 Solve the equations.

$x + 3 = 9$

$x =$ _____

1 mark ☐

$b - 3 = 9$

$b =$ _____

1 mark ☐

$3c = 12$

$c =$ _____

1 mark ☐

5 Hassan is balancing objects.
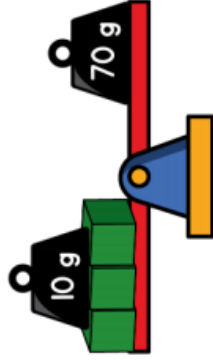
What is the mass of one of the cubes?

_____ g

2 marks

6 If $p = 7$, what is the value of $2p + 9$?

_____

1 mark

7 Nina uses a bar model to solve $3x + 5 = 38$

x	x	x	5
38			
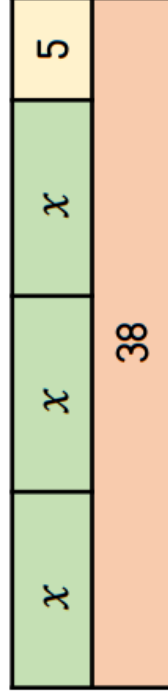
Solve the equation $3x + 5 = 38$

$x =$ _____

2 marks

8 Solve $10y - 3 = 77$

$y =$ _____

2 marks

9 Dexter is selling ice-creams.

He uses this formula to work out the price.

$$\text{Price} = £1.50s + £0.40t$$

Where s is the number of scoops and t is the number of toppings.

Work out the cost of an ice-cream with 2 scoops and 3 toppings.

£ _____

1 mark

Libby buys an ice-cream that costs £2.30
How many scoops does she have?

_____

1 mark

How many toppings does she have?

_____

1 mark