(3)

(2) Match the equivalent fractions, decimals and percentages.
a) Shade the grid in the given proportions.


- $\frac{3}{10}$ green
- 0.03 red
- $13 \%$ blue
- 0.3 yellow

b) What proportion of the grid is unshaded?

Write your answer as a fraction, decimal and percentage.
fraction $=\square$ decimal $=\square$ percentage $=\square$

| Fraction | Decimal | Percentage |
| :---: | :---: | :---: |
|  | 0.21 |  |
| $\frac{2}{10}$ |  | $12 \%$ |
|  | 0.4 |  |
|  |  |  |
| $\frac{3}{4}$ | 0.94 | $4 \%$ |
|  |  |  |
|  |  |  |
|  |  |  |

Amir was asked to complete the statement using $<,>$ or $=$


What mistake has Amir made?

Match the decimal cards to the people.

(7) Use the digit cards to write a decimal greater than $\frac{1}{5}$ but less than 40\%

You may not use a card more than once in each number.


How many other answers can you find?

Fractions can be expressed as divisions.
For example, $\frac{1}{2}=1 \div 2$
Write the fractions as divisions.
a) $\frac{1}{3}=\square \div \square$
d)

b) $\frac{2}{3}=\square \div$

e)

c) $\frac{4}{7}=$ $\square$
$\square$
f) $\frac{1}{10}=\square \div$

(2) Use place value counters to find the decimal equivalent of $\frac{2}{5}$ You can draw on the place value chart to help you with exchanging. $\frac{2}{5}=2 \div 5=\square$

b)

c)

)


Use the short division method to find the decimal equivalent of the fractions.
a)

a) $\frac{7}{8}=$ $\square$ c) $\frac{1}{16}=\square$

Jack is incorrect.
Explain the mistake that Jack has made.
$\qquad$
$\qquad$
$\qquad$

7 Filip is thinking of a fraction.
When he converts it to a decimal, it is smaller than 0.5 but greater than 0.4

What fraction could Filip be thinking of?

Are there any other possible answers? Talk to a partner.

8 Use the short division method to find the decimal equivalent of $\frac{1}{3}$
a) Shade the hundred squares to represent the fractions.

b) Write the fractions as percentages.

c) Compare your shaded grids with a partner's. What is the same and what is different?

3
Fill in the missing numbers.
a) $\frac{9}{10}=\frac{\square}{100}=$ $\square$
c) $\frac{9}{50}=\frac{\square}{100}=$ $\square$
b) $\frac{9}{20}=\frac{\square}{100}=$ $\square$ $\%$
d) $\frac{9}{25}=\frac{\square}{100}=$ $\qquad$
(4)


Explain the mistake that Ron has made.
What is the correct answer?

$$
\frac{1}{20}=\square \%
$$

5 Convert the fractions to percentages.
a) $\frac{1}{4}=\square$ $\frac{1}{2}=\square$ $\frac{3}{4}=\square$
b) $\frac{1}{5}=\square$
$\frac{2}{5}=\square$
$\frac{4}{5}=\square$
c) $\frac{16}{20}$ $\qquad$
d) $\frac{45}{50}=$

e) What do you notice?

6
a) Shade the grid in the given proportions.

- $\frac{3}{5}$ green
- $14 \%$ red
- $\frac{4}{20}$ blue
- the rest yellow

b) What percentage of the grid is yellow?
$\square$ $\%$ a) Use each digit card once to make the statements correct.

b) Are there any other solutions?


## Year 6

## Percentages

## Name

$\qquad$

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

$\square$ $\%$ $\square$ $\%$

$\square$

2 Shade $12 \%$ of the hundred grid.

(3)

Use the bar model to help you.


What is $50 \%$ of 120 kg ?

What is $25 \%$ of 120 kg ?
kg
4) Use the bar model to help you.


What is $10 \%$ of 70 ?

What is $30 \%$ of 70 ?

What is $90 \%$ of 70 ?

What is $5 \%$ of 70 ?
(5) The percentage bar chart shows the colour of counters in a box.


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?
$650 \%$ of a number is 32
What is the number?
$10 \%$ of a number is 7.5
What is the number?
(7) Max has f 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?
£

8
Complete the table.

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

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?


2 marks

2 marks

Circle how confident you feel with percentages.


Complete the table.


Shade $15 \%$ of the hundred square red.
Shade $32 \%$ of the hundred square blue.


a) Is $1 \%$ of this bar model shaded? $\qquad$

| $1 \%$ |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Explain your reasoning.
$\qquad$
$\qquad$
b) What percentage of each bar model is shaded?


|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



5 Passengers are boarding a plane.
The plane has 100 seats.
a) $10 \%$ of the seats are already full.

How many passengers are already on the plane?

b) $15 \%$ of the seats have not been booked.

How many seats have been booked?

c) How many passengers still need to board the plane? $\square$
Shade 85\% of this bar model.


[^0]
[^0]:    Compare answers with a partner.

