

Fractions of a set of objects (2)





1 Draw counters in the bar models to help you complete each number sentence.

a) $\frac{2}{3}$ of 15 = 

b) $\frac{3}{4}$ of 8 = 

c) $\frac{2}{5}$ of 20 = 

2 Match the questions and answers.

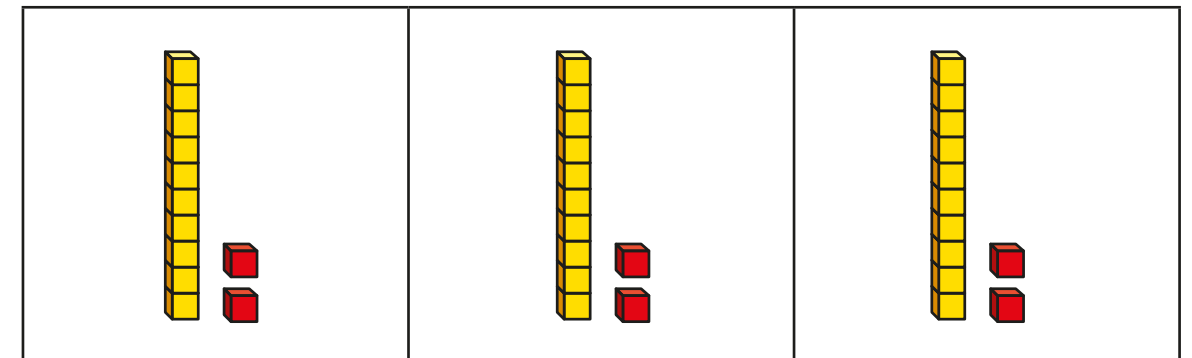
| | | |
|-------------------------|--|----|
| $\frac{2}{3}$ of 9 = ? |  | 9 |
| $\frac{3}{5}$ of 15 = ? |  | 6 |
| $\frac{5}{6}$ of 12 = ? |  | 15 |
| $\frac{3}{4}$ of 20 = ? |  | 10 |

3 What is $\frac{6}{6}$ of 18?

How do you know?



4 Brett uses a bar model and base 10 to find $\frac{2}{3}$ of 36



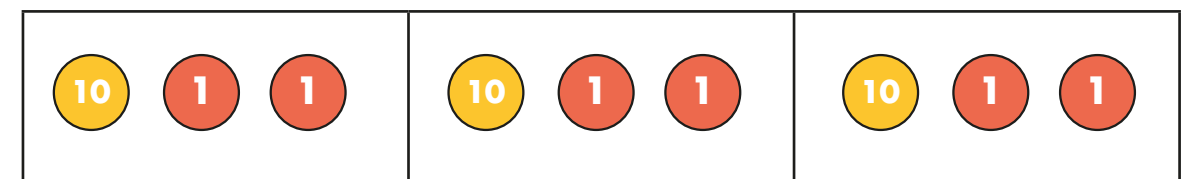
Use Brett's method to complete the number sentences.

a) $\frac{2}{3}$ of 63 =

b) $\frac{3}{4}$ of 48 =

c) $\frac{3}{4}$ of 92 =

5 Kim uses a bar model and place value counters to find $\frac{2}{3}$ of 36



Use Kim's method to complete the number sentences.

a) $\frac{2}{3}$ of 96 =

b) $\frac{3}{5}$ of 60 =

c) $\frac{3}{4}$ of 52 =

6 Complete the number sentences.

a) $\frac{2}{3}$ of 45 = 30

b) $\frac{3}{4}$ of 40 = 30

c) $\frac{5}{6}$ of 36 = 30

7



Tommy

To find $\frac{3}{4}$ of 12,
you divide by 4 and then
multiply the answer by 3

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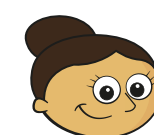
Dexter

Who is correct? Tommy

How do you know? Show your working.



8 Dora, Whitney and Ron each find a fraction of 24 using counters.



Dora

I have $\frac{5}{6}$ of 24

I have $\frac{2}{3}$ of 24



Whitney



Ron

I have 18 counters.

a) Who has the most counters? Show your workings.

$\frac{5}{6}$ of 24 = 20 $\frac{2}{3}$ of 24 = 16

Dora

b) How many more counters does Dora have than Whitney?

4

9 Write fractions to make the statements correct.

e.g.

$\frac{1}{6}$ of 36 < 18

$\frac{1}{2}$ of 36 = 18

$\frac{3}{4}$ of 36 > 18

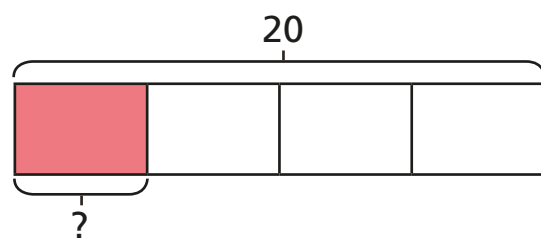
How many different answers can you find for each?
Compare with a partner.



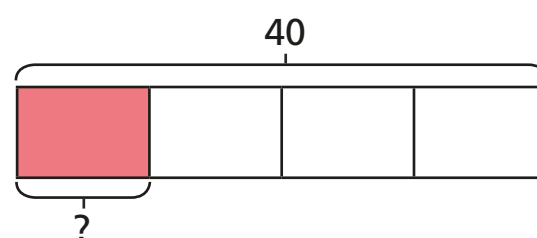
Fractions of a quantity

1 Complete the number sentences.

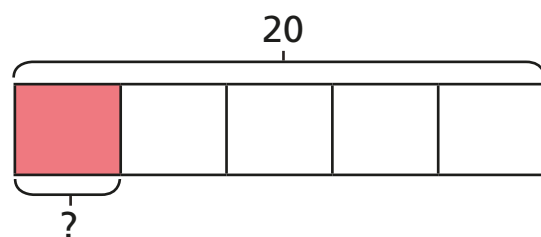
a) $\frac{1}{4}$ of 20 = 5



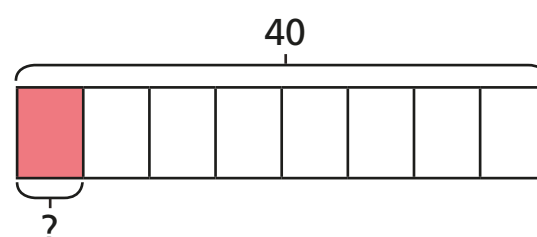
d) $\frac{1}{4}$ of 40 = 10



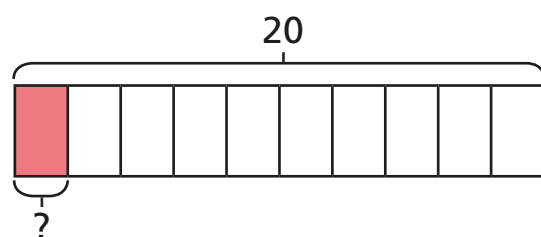
b) $\frac{1}{5}$ of 20 = 4



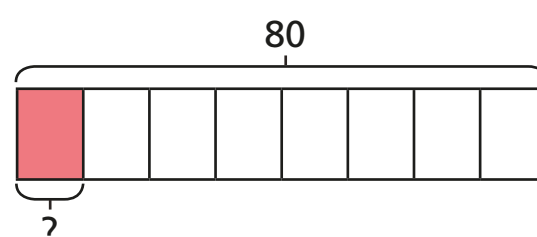
e) $\frac{1}{8}$ of 40 = 5



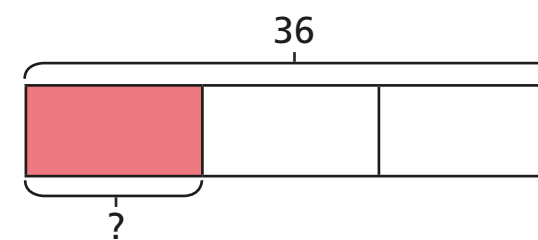
c) $\frac{1}{10}$ of 20 = 2



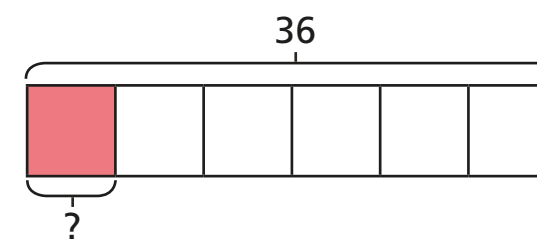
f) $\frac{1}{8}$ of 80 = 10



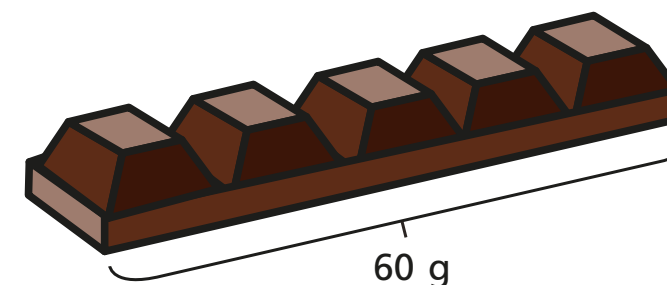
g) $\frac{1}{3}$ of 36 = 12



h) $\frac{1}{6}$ of 36 = 6



- 2 Filip has a chocolate bar with 5 equal pieces.
The chocolate bar weighs 60 g.



a) What is the mass of one piece?

The mass of one piece is 12 g.

b) Filip eats $\frac{3}{5}$ of the bar of chocolate.
How many grams does Filip eat?

Filip eats 36 g of chocolate.

3 Complete the number sentences.

a) $\frac{1}{4}$ of 24 = 6

c) $\frac{1}{8}$ of 32 = 4

$\frac{3}{4}$ of 24 = 18

$\frac{5}{8}$ of 32 = 20

b) $\frac{1}{7}$ of 35 = 5

d) $\frac{5}{8}$ of 64 = 40

$\frac{3}{7}$ of 35 = 15

$\frac{7}{8}$ of 64 = 56

$\frac{5}{7}$ of 35 = 25

$\frac{10}{8}$ of 64 = 80

4 Match the calculations to the answers.

| | |
|----------------------|----|
| $\frac{2}{3}$ of 18 | 18 |
| $\frac{5}{6}$ of 18 | 15 |
| $\frac{9}{10}$ of 20 | 16 |
| $\frac{4}{5}$ of 20 | 12 |



5 a) Write each calculation in the correct circle.

$\frac{1}{2}$ of 16 $\frac{1}{4}$ of 24 $\frac{2}{3}$ of 9 $\frac{3}{2}$ of 4 $\frac{1}{6}$ of 48

= 6

= 8

$\frac{1}{4}$ of 24
 $\frac{2}{3}$ of 9
 $\frac{3}{2}$ of 4

$\frac{1}{2}$ of 16
 $\frac{1}{6}$ of 48

b) Write one more calculation in each circle.

6 Write <, > or = to compare the calculations.

a) $\frac{2}{7}$ of 21 < $\frac{2}{3}$ of 21

b) $\frac{3}{5}$ of 40 = $\frac{2}{3}$ of 36

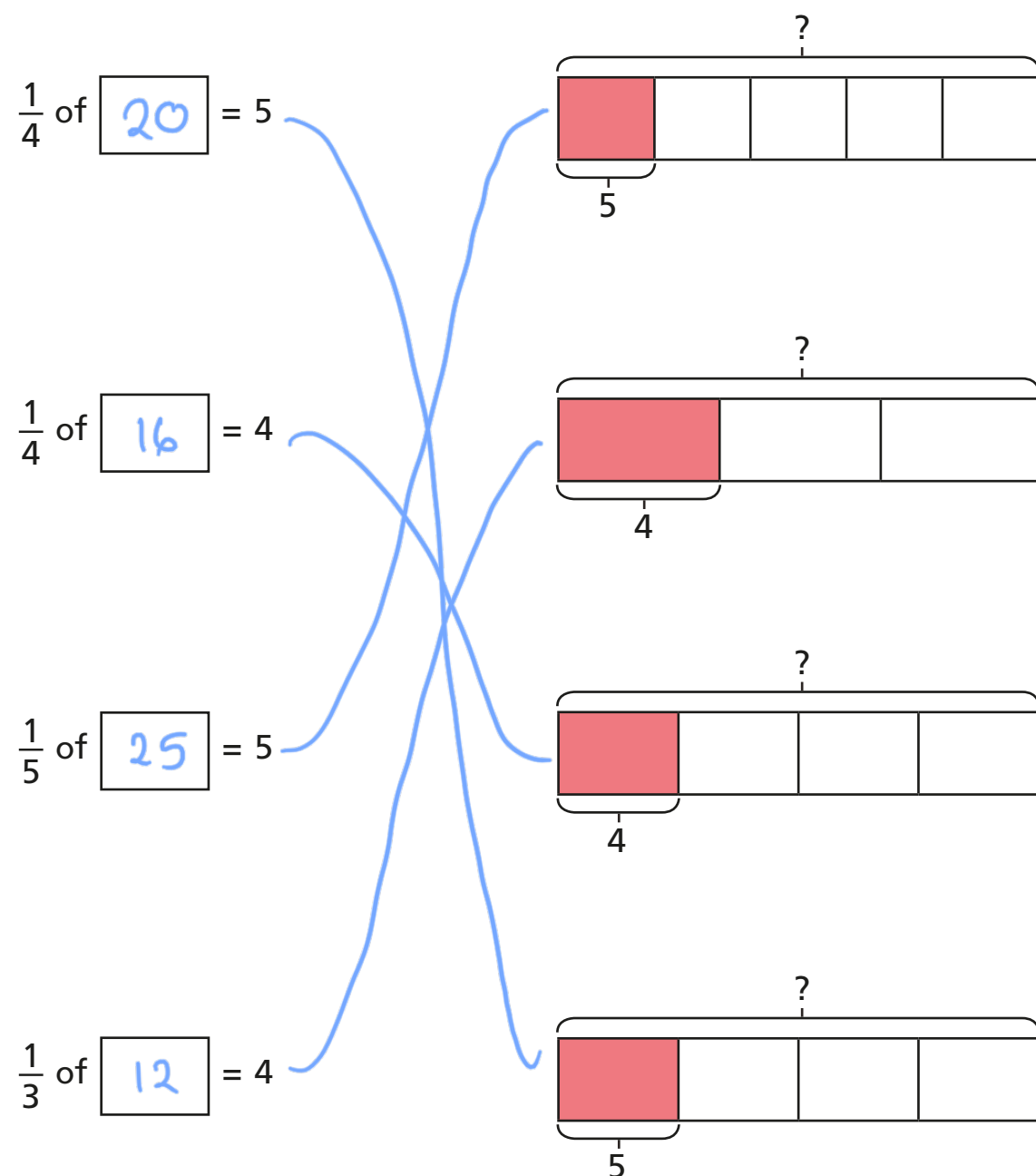
c) $\frac{6}{8}$ of 40 = $\frac{3}{4}$ of 40

d) $\frac{6}{10}$ of 50 = $\frac{3}{10}$ of 100

Calculate quantities

1 Match the calculations to the bar models.

Work out the missing quantities.



2 Complete the sentences.

a) When one fifth is 1, the whole is 5

When one fifth is 10, the whole is 50

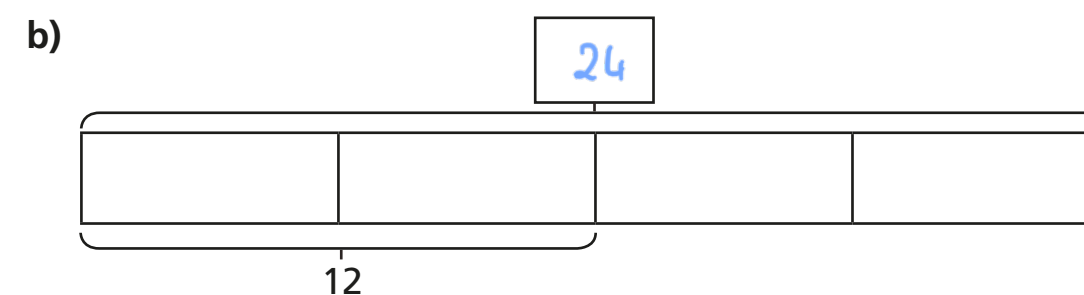
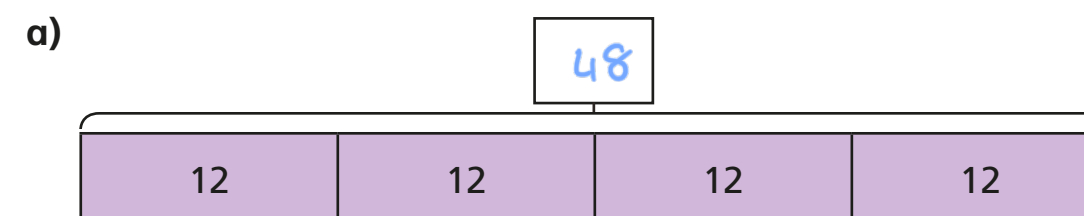
When one fifth is 20, the whole is 100

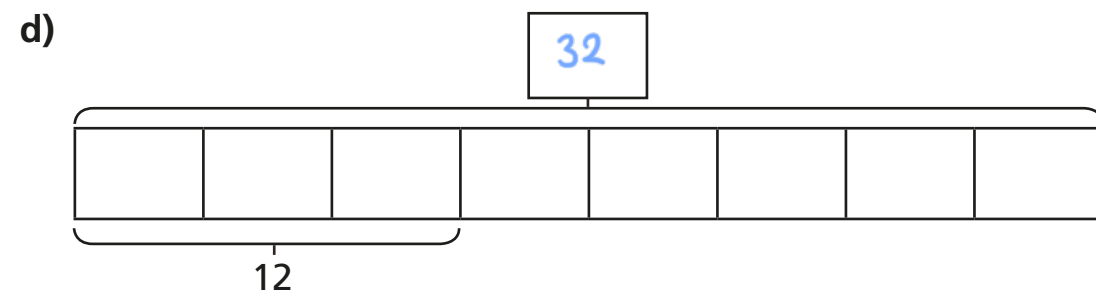
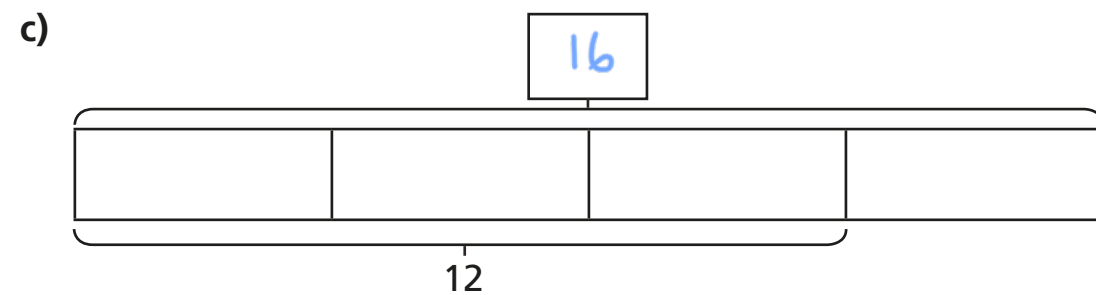
b) When $\frac{1}{7}$ is 2, the whole is 14

When $\frac{1}{7}$ is 4, the whole is 28

When $\frac{1}{7}$ is 8, the whole is 56

3 Complete the bar models and fill in the whole.





4 Complete the calculations.

a) $\frac{1}{2}$ of 60 = 30

e) $\frac{3}{7}$ of 35 = 15

b) $\frac{1}{2}$ of 30 = 15

f) $\frac{5}{7}$ of 21 = 15

c) $\frac{1}{4}$ of 60 = 15

g) $\frac{5}{7}$ of 49 = 35

d) $\frac{3}{4}$ of 20 = 15

h) $\frac{7}{5}$ of 25 = 35

5 Dora and Mo have a full bottle of juice.

Dora drinks $\frac{2}{5}$ of the juice.

Mo drinks $\frac{1}{5}$ of the juice.

There is 150 ml of juice left in the bottle.

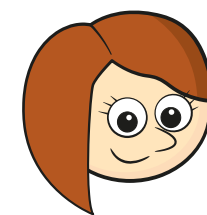
How much juice was in the full bottle?

375 ml

6 Rosie and Ron are collecting red and blue counters.

They have the same number of blue counters.

They have a different number of red counters.



Rosie

I have 18 counters altogether. $\frac{2}{3}$ are blue.



Ron

$\frac{3}{4}$ of my counters are blue.

a) How many counters does Ron have altogether?

16

b) How many red counters do they each have?

Rosie has 6 red counters.

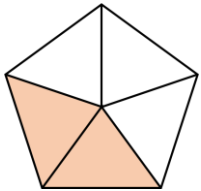
Ron has 4 red counters.

Year 4

Fractions

Name _____

1 What fraction of the shape is shaded?

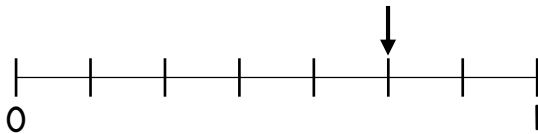


$\frac{2}{5}$



1 mark

What fraction is the arrow pointing to?



$\frac{5}{7}$



1 mark

2 What is $\frac{2}{q} + \frac{5}{q}$?

Use the fraction strip to help you.



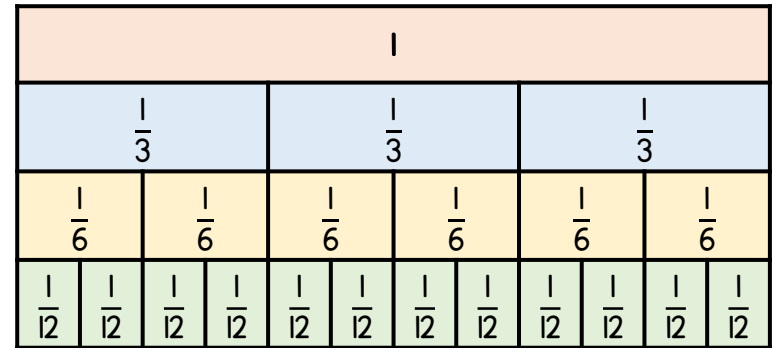
$\frac{7}{q}$



1 mark

3 Complete the equivalent fractions.

Use the fraction wall to help you.



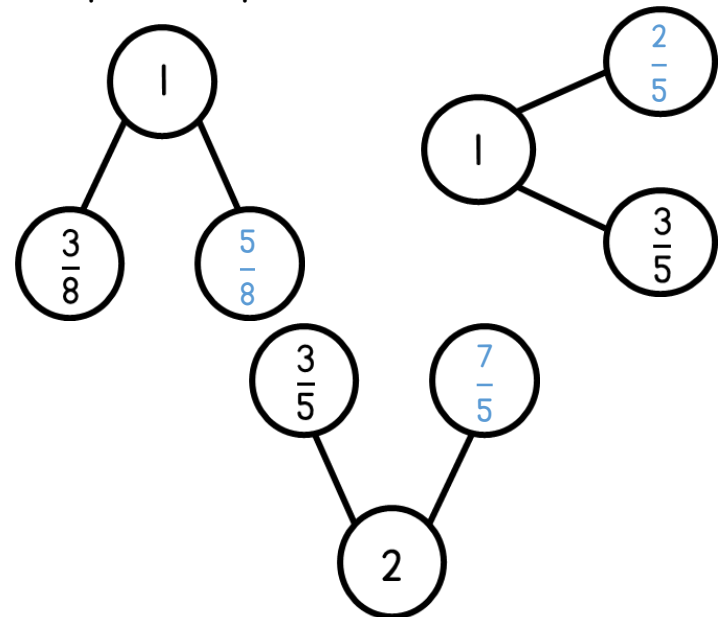
$$\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$$

$$1 = \frac{12}{12} = \frac{6}{6} = \frac{3}{3}$$



2 marks

4 Complete the part-whole models.



3 marks

- 5 Annie is counting in quarters.

One quarter, two quarters, three quarters, four quarters, five quarters, six quarters...



1 mark for 2 correctly circled.

What is the next fraction that Annie will say?

Circle all possible answers.

$\frac{7}{4}$

$\frac{4}{7}$

$1\frac{3}{4}$

Seven Quarters

☐

2 marks

- 6 Calculate.

$$\frac{12}{5} - \frac{4}{5} = \frac{8}{5}$$

$$\frac{4}{5} + \frac{3}{5} = 1 + \frac{2}{5}$$

☐

2 marks

- 7 A chocolate bar weighs 250 grams.

Liam eats $\frac{3}{10}$ of the chocolate bar.

Bella eats $\frac{7}{10}$ of the chocolate bar.

How many more grams does Bella eat than Liam?

100 grams

☐

2 marks

- 8 Complete the missing number.

$$\frac{1}{6} \text{ of } \boxed{252} = 42$$

☐

1 mark

Circle how confident you feel with fractions.

1

Not
confident

2

3

4

5

Very
confident