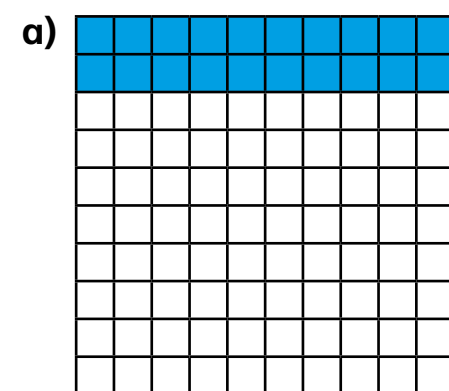
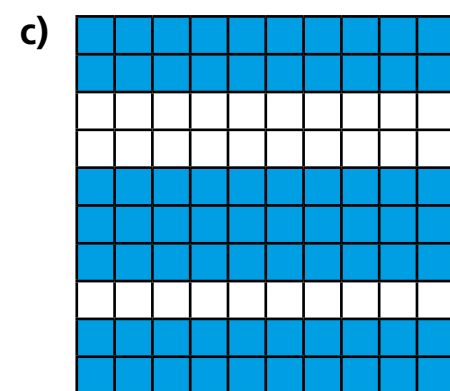


- 1 The hundred square represents 1 whole.

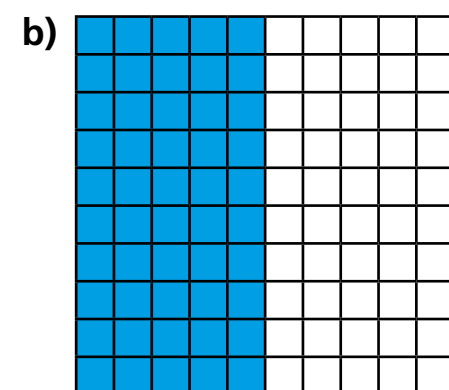
What fraction of each hundred square is shaded?



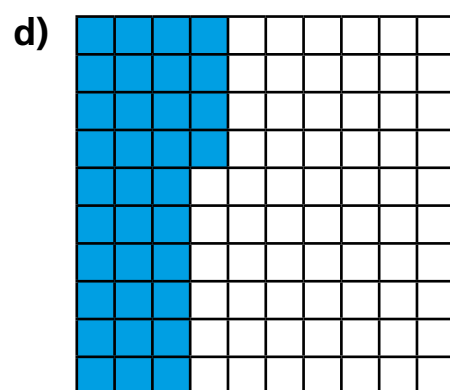
$$\frac{1}{5}$$



$$\frac{7}{10}$$

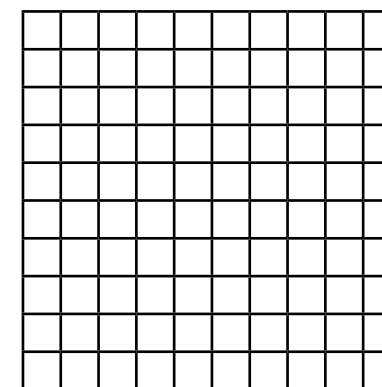


$$\frac{1}{2}$$



$$\frac{37}{100}$$

- 2 Here is a hundred square.



What fraction of the whole does each represent?

a) 4 full rows = $\frac{4}{10}$

b) 6 full columns = $\frac{6}{10}$

c) 13 squares = $\frac{13}{100}$

d) 2 full rows and 5 squares = $\frac{25}{100}$

e) 3 full columns and 8 squares = $\frac{38}{100}$

- 3 Complete the sentences.

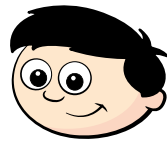
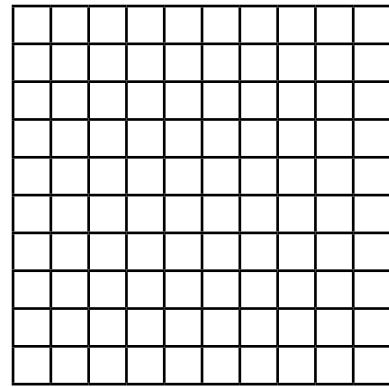
a) 4 tenths is equivalent to $\frac{40}{100}$ hundredths.

b) 70 hundredths is equivalent to $\frac{7}{10}$ tenths.

c) 5 tenths is equivalent to $\frac{50}{100}$ hundredths or 1 half

4

One row is one tenth and one column is one tenth, so if I colour one row and one column on my hundred square I will have shown 2 tenths.



Is Dexter correct? No

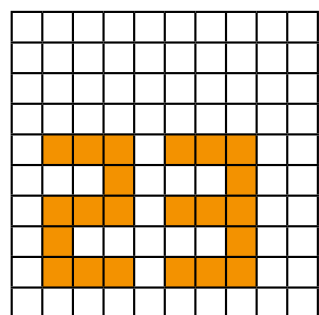
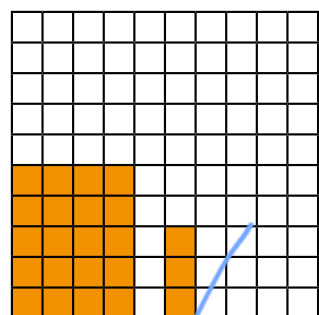
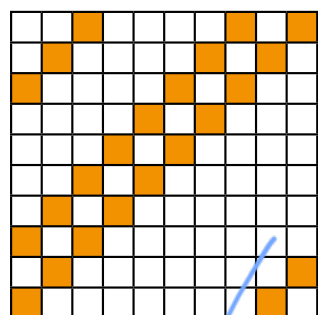
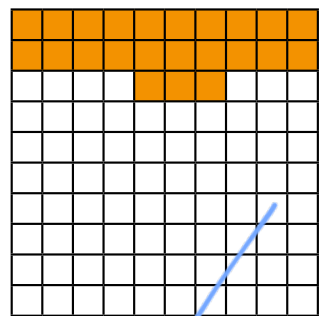
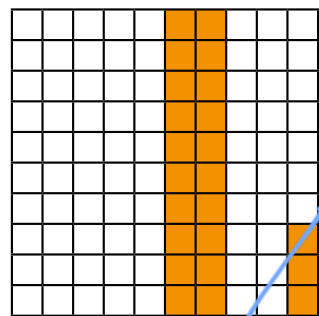
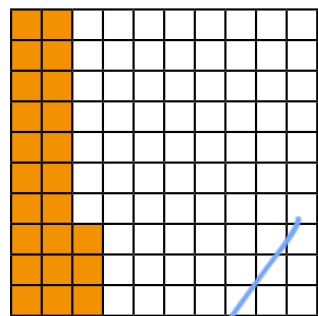
Explain your answer.

You may use the hundred square to help you.

There would only be 19 squares shaded.

5

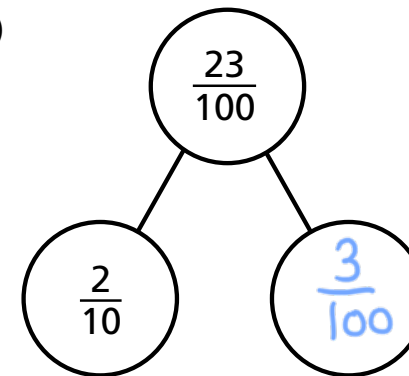
Tick the hundred squares with $\frac{23}{100}$ shaded.



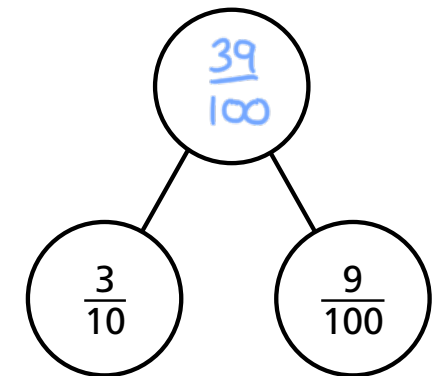
6

Complete the part-whole models.

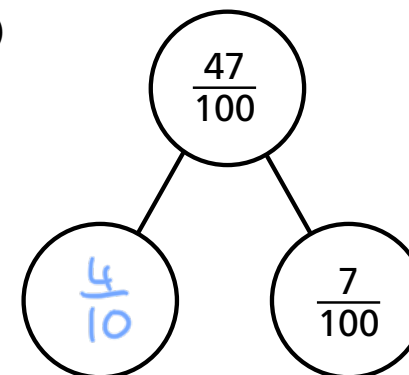
a)



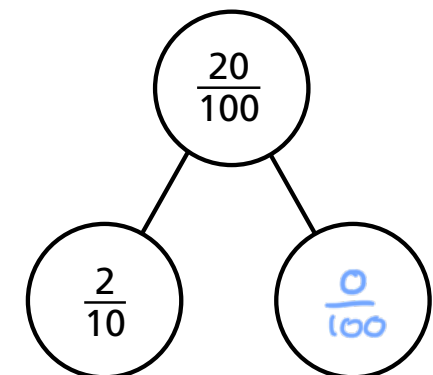
c)



b)



d)



7



Annie

$$\frac{73}{100} = \frac{7}{10} + \frac{3}{100}$$

$$\frac{73}{100} = \frac{6}{10} + \frac{13}{100}$$



Ron

Who is correct? Both

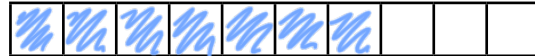
How many ways can you partition $\frac{73}{100}$?

Tenths as decimals



1 Shade the bar models to represent the amounts.

a) 7 tenths



b) $\frac{4}{10}$



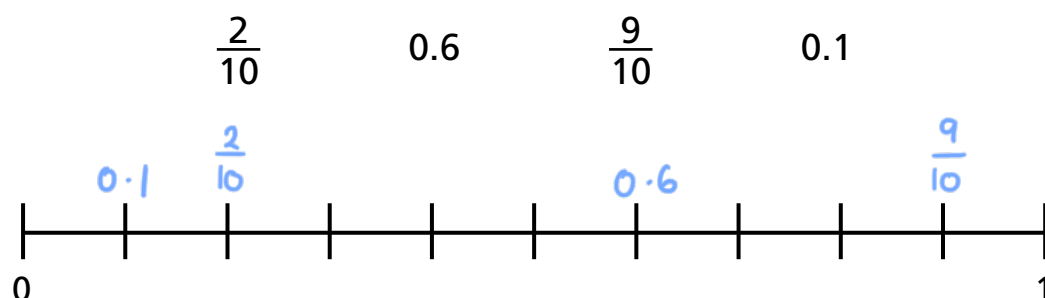
c) 0.3



2 Complete the table to show the fractions and decimals the bar models represent.

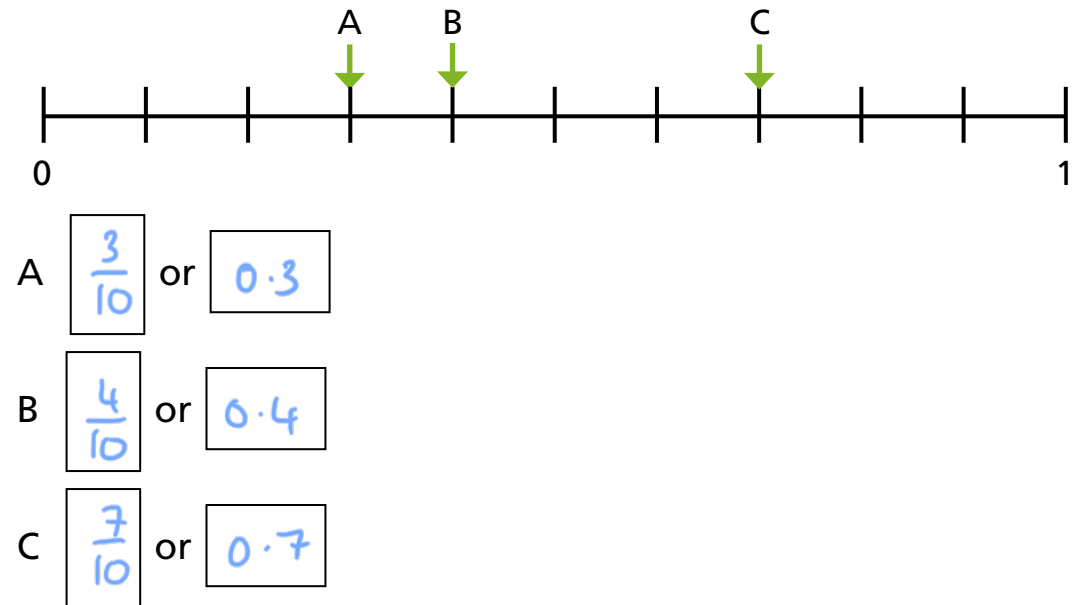
Bar model	Fraction	Decimal
	$\frac{1}{10}$	0.1
	$\frac{5}{10}$	0.5
	$\frac{6}{10}$	0.6
	$\frac{3}{10}$	0.3

3 Write each fraction and decimal in the correct place on the number line.

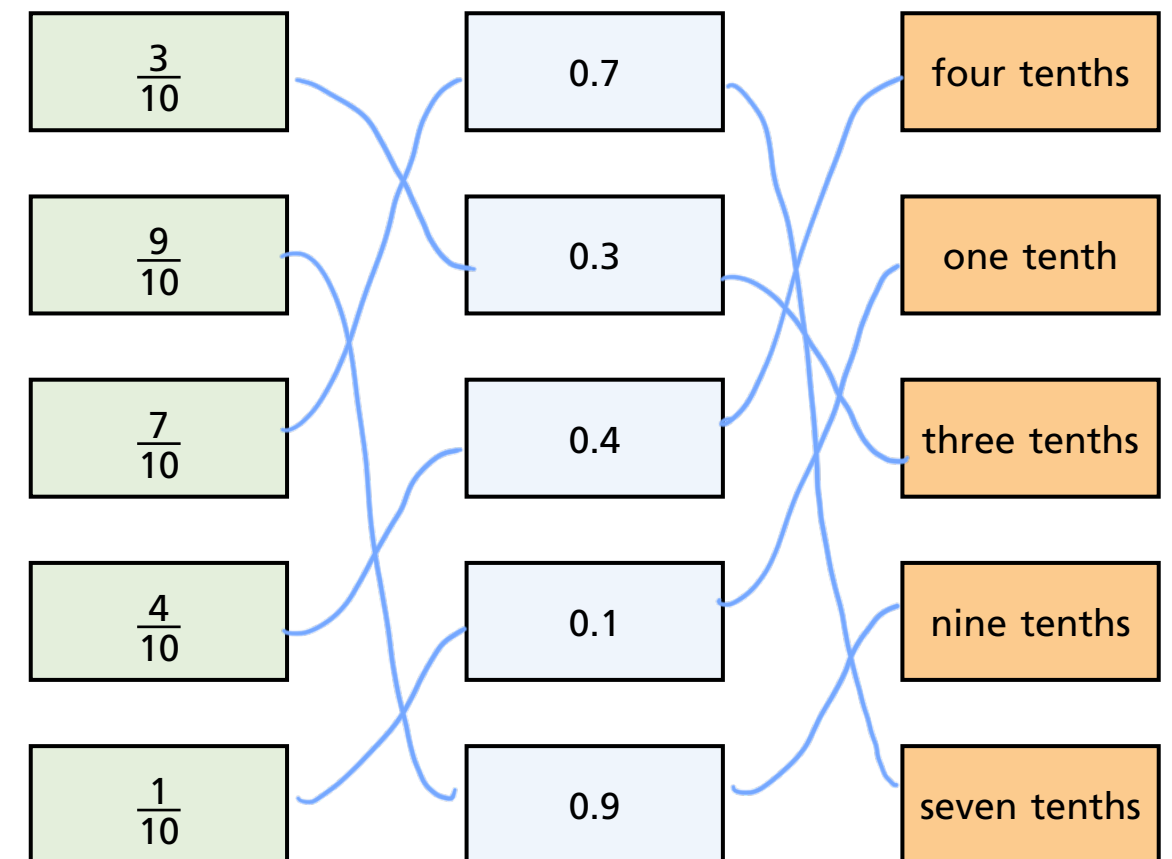


4 Work out the values of A, B and C.

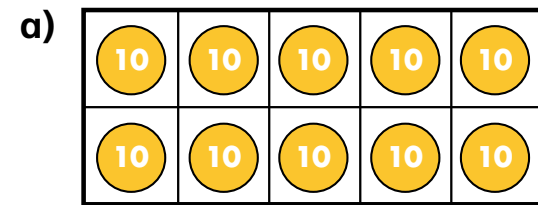
Give your answers as fractions and decimals.



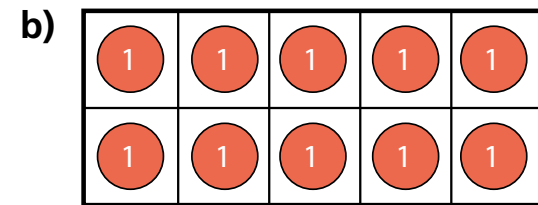
5 Match the equivalent fractions, decimals and words.



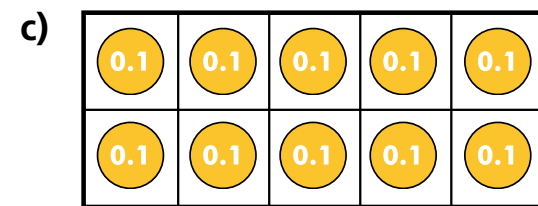
6 What is the total value represented by each ten frame?



100

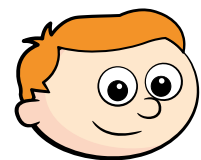


10



1

7



Nine tenths
can be written 0.9, so ten
tenths must be 0.10

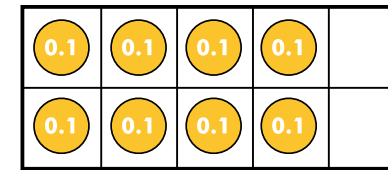
Do you agree with Ron? No

Explain your answer.

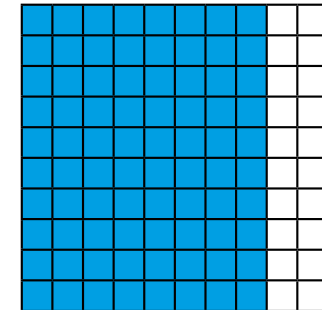
0.10 is one tenth. Ten tenths is one whole.

8 Eight tenths can be represented in all of the ways shown.

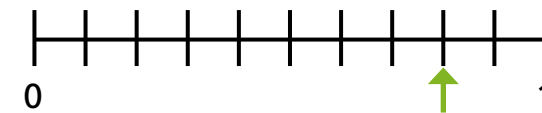
A



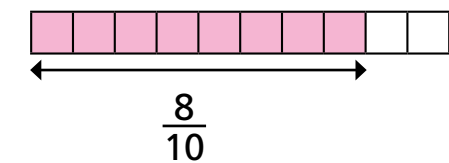
C



B



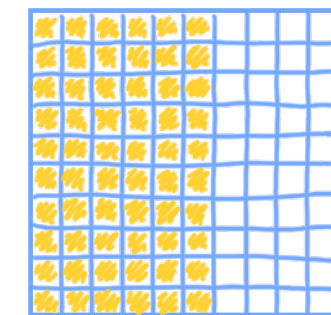
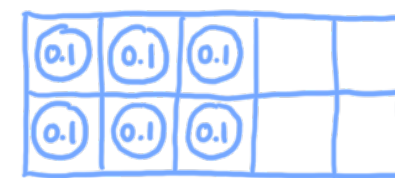
D



Which do you think is the best representation? Various

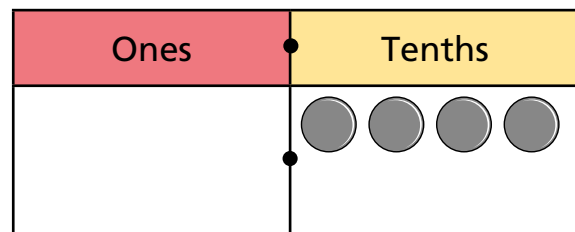
Discuss your answer with a partner.

Represent six tenths in each different way.

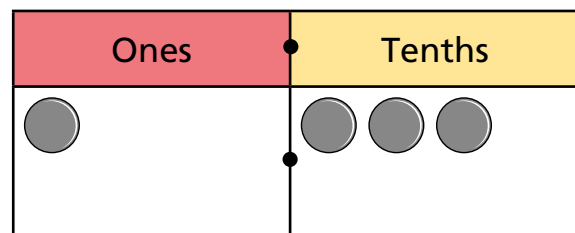


Tenths on a place value grid

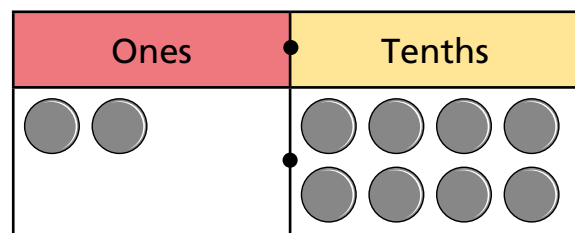
1 Write the decimal that is shown in each place value chart.



0.4



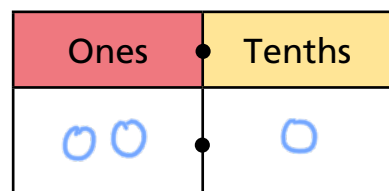
1.3



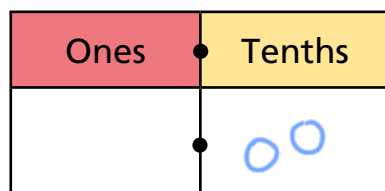
2.8

2 Draw counters on the place value charts to represent each number.

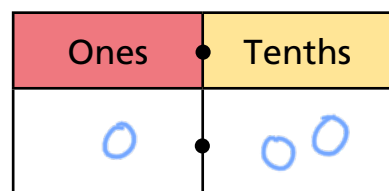
a) 2.1



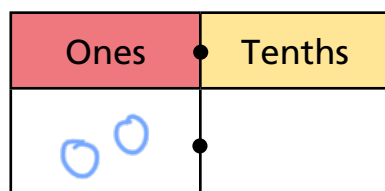
c) 0.2



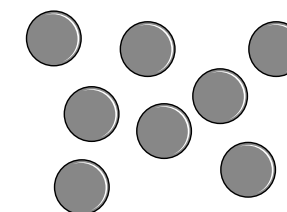
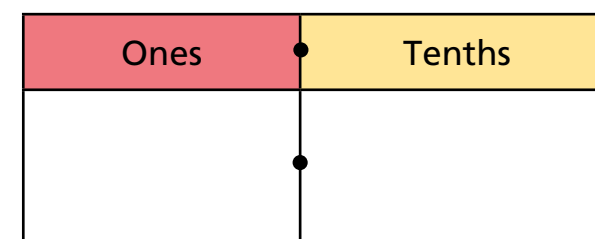
b) 1.2



d) 2



3 Rosie is using this place value chart to make numbers.



She uses all 8 counters each time.

Complete the sentences.

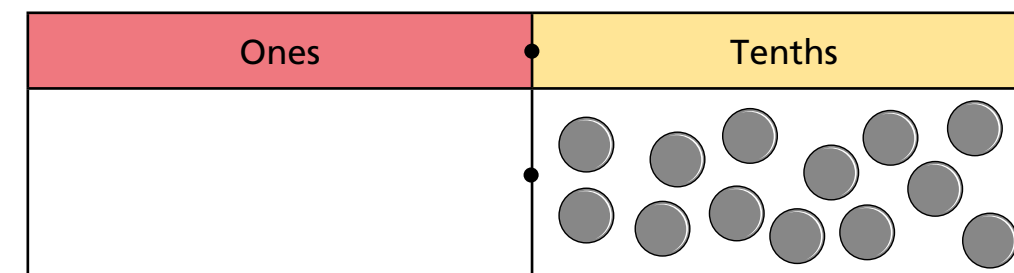
a) The smallest number possible is 0.8

b) The greatest number possible is 8

c) A number between 3 and 4 is 3.5

d) The closest possible number to 5 is 5.3

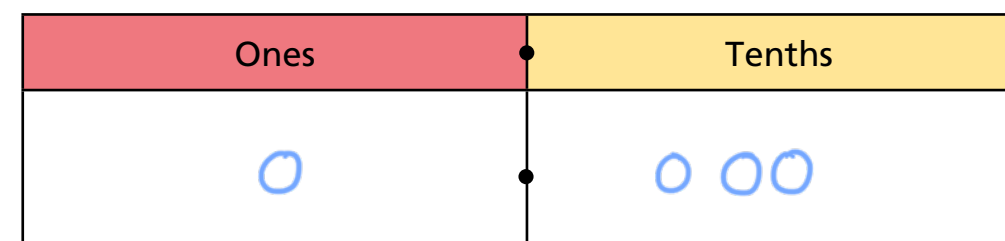
4 Tommy has made a number on a place value chart.



a) What number has Tommy represented?

1.3

b) Draw counters to show how Tommy could have represented this differently.



c) What method did you use? Talk about it with a partner.

- 5 Complete the number sentences to match the place value charts.

a)

Ones	Tenths
2	6

There are 2 ones and 6 tenths.

$$\boxed{2} \text{ ones} + \boxed{6} \text{ tenths} = \boxed{2} + \boxed{0.6} = \boxed{2.6}$$

b)

Ones	Tenths
0	9

There are 0 ones and 9 tenths.

$$\boxed{0} \text{ ones} + \boxed{9} \text{ tenths} = \boxed{0} + \boxed{0.9} = \boxed{0.9}$$

- 6 Draw counters to represent each number.

Write each number as a decimal.

- a) There are 3 ones and 2 tenths.

Ones	Tenths
<u>0 0 0</u>	<u>0 0</u>

3.2

- b) There are 5 ones and 2 tenths.

Ones	Tenths
<u>0 0 0 0 0</u>	<u>0 0</u>

5.2

- c) There are 2 tenths.

Ones	Tenths
	<u>0 0</u>

0.2

- 7 Match the written numbers to the place value charts.

one tenth	<table><tr><th>Ones</th><th>Tenths</th></tr><tr><td>1</td><td>2</td></tr></table>	Ones	Tenths	1	2
Ones	Tenths				
1	2				
twenty-one tenths	<table><tr><th>Ones</th><th>Tenths</th></tr><tr><td>2</td><td>1</td></tr></table>	Ones	Tenths	2	1
Ones	Tenths				
2	1				
twelve tenths	<table><tr><th>Ones</th><th>Tenths</th></tr><tr><td>1</td><td>0</td></tr></table>	Ones	Tenths	1	0
Ones	Tenths				
1	0				
ten tenths	<table><tr><th>Ones</th><th>Tenths</th></tr><tr><td>0</td><td>1</td></tr></table>	Ones	Tenths	0	1
Ones	Tenths				
0	1				

- 8

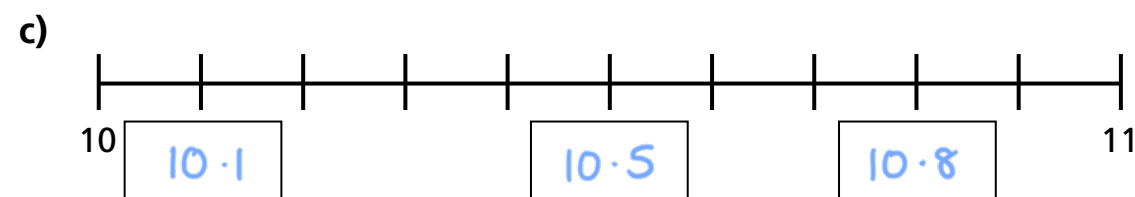
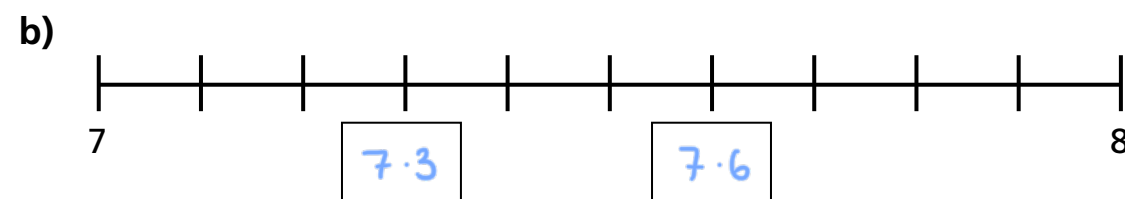
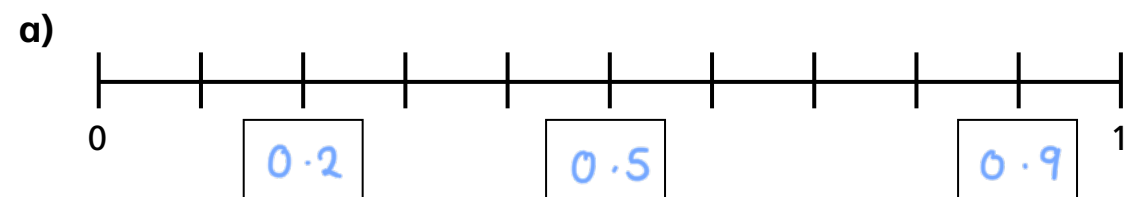


Six tenths added to four tenths makes ten tenths, which is a whole.

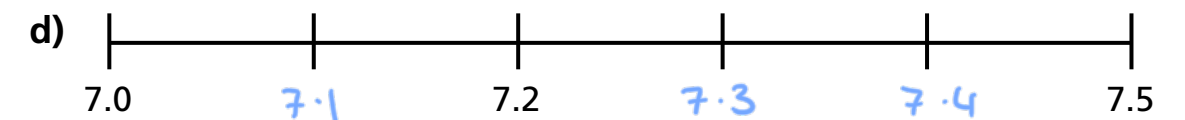
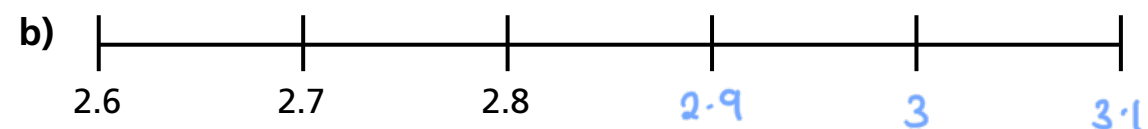
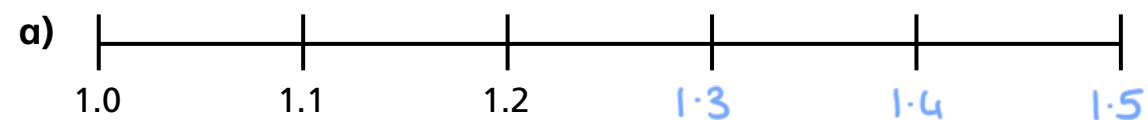
How many other ways can you make a whole from tenths?

Various answers.

1 Fill in the decimal numbers on each number line.

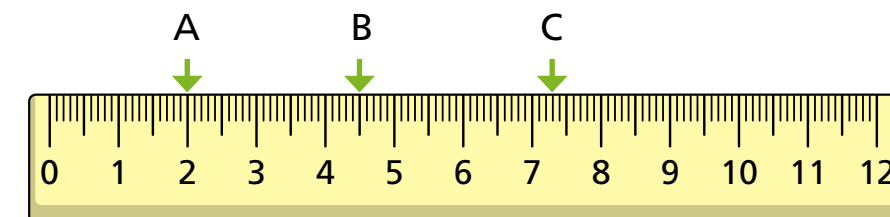


2 Complete the number lines.



3 Here is a ruler with centimetres as whole numbers and millimetres as tenths.

Complete the sentences about points A, B and C.



Point A is 2 cm along the ruler.

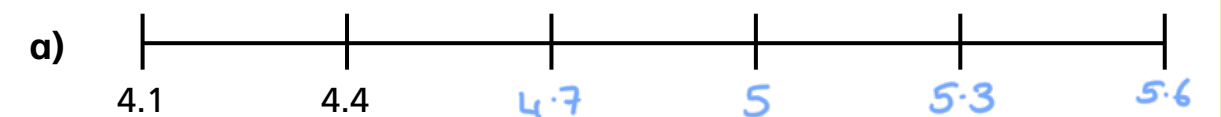
Point B is 4 cm and 5 mm along the ruler.

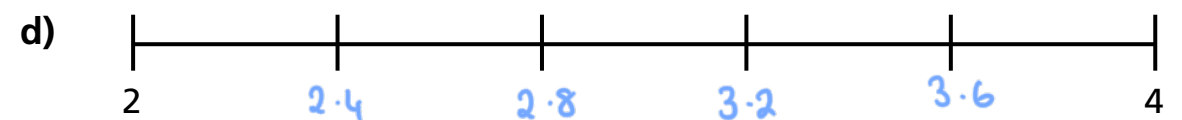
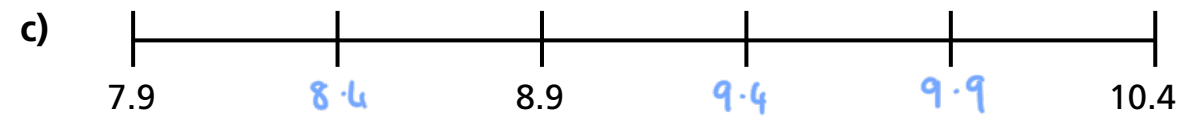
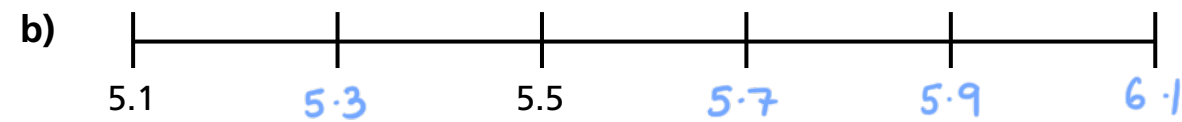
As a decimal it is 4.5 cm.

Point C is 7 cm and 3 mm along the ruler.

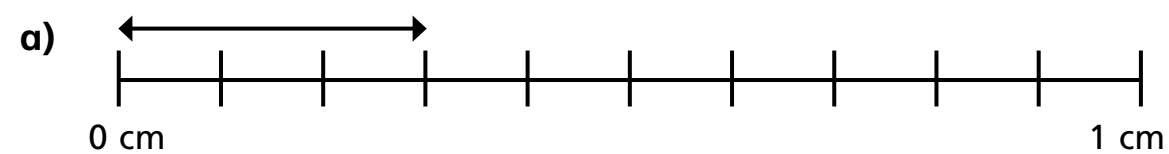
As a decimal it is 7.3 cm.

4 Complete the number lines.

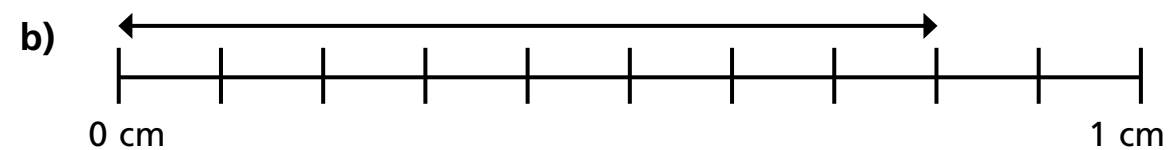




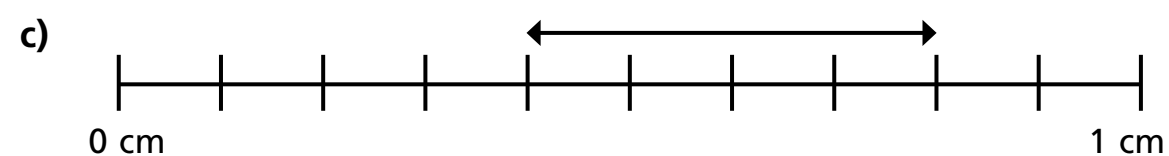
5 How long is each line?



The line is 0.3 cm long.



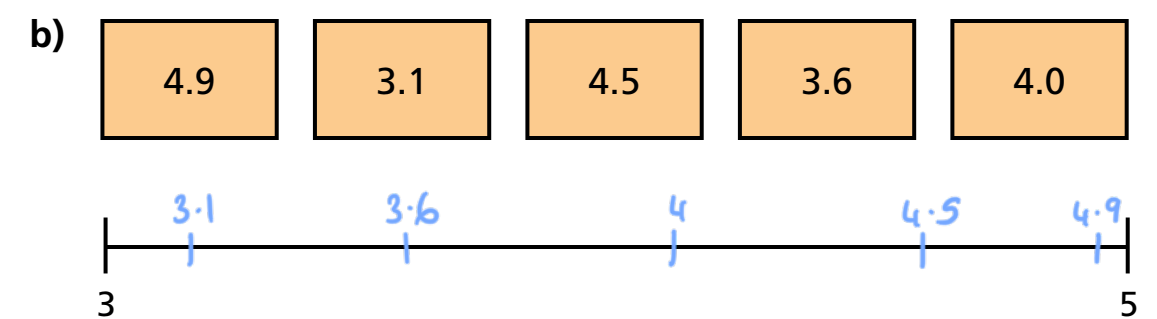
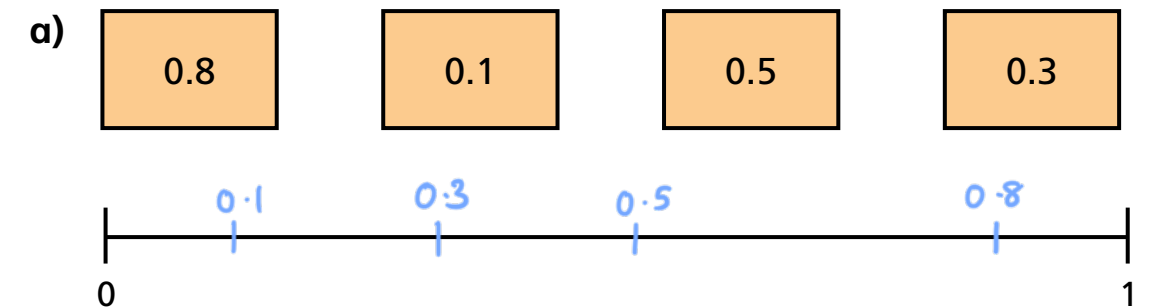
The line is 0.8 cm long.



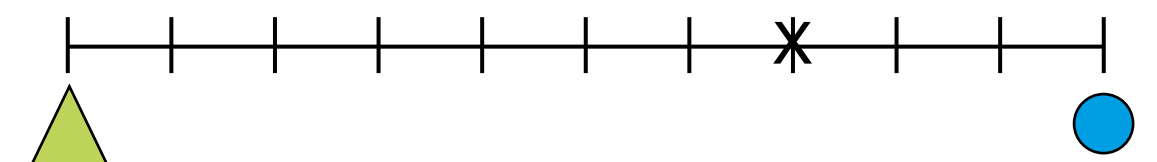
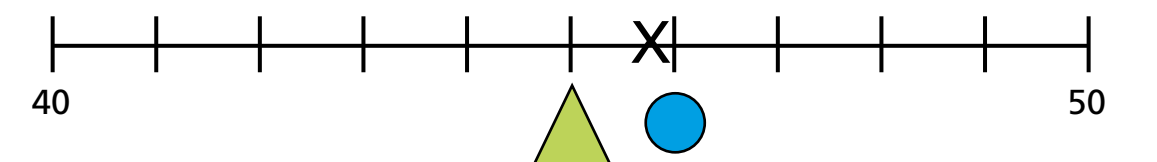
The line is 0.4 cm long.

How would your answers have been different if given in millimetres?

6 Draw arrows to estimate the position of the numbers on the number line.



7 The triangle, circle and cross have the same value on both lines. Work out the values.



45 = 46 X = 45.7

Create your own problem like this for a friend.

