Decimals as fractions

1 Complete the sentences.

a)

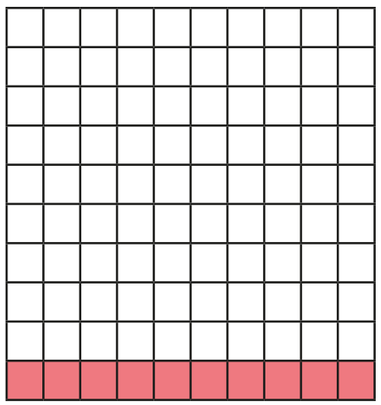
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

The whole has been divided into [10] equal parts.

Each part is worth [0·1]

This is equivalent to [$\frac{1}{10}$]

b)



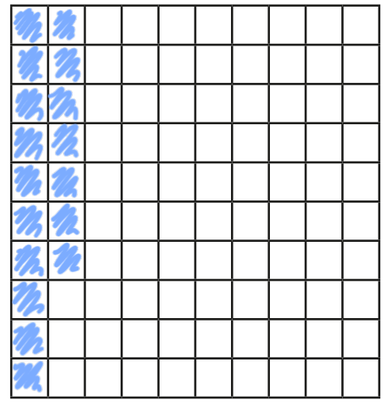
The whole has been divided into [100] equal parts.

Each part is worth [0·01]

[10] parts out of [100] are shaded.

This is equivalent to [$\frac{10}{100}$] or $\frac{1}{10}$

2 **a)** Shade 0.17 of the hundred square.



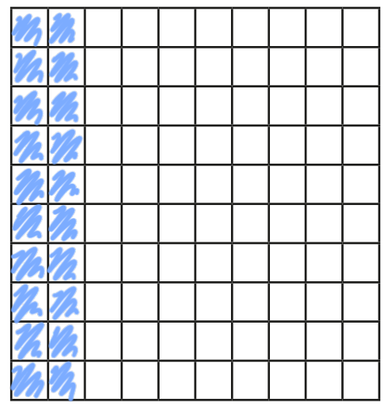
Complete the sentence.

[17] parts out of [100] are shaded.

Write 0.17 as a fraction.

0.17 = [$\frac{17}{100}$]

b) Shade 0.2 of the hundred square.



Complete the sentence.

[20] parts out of [100] are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 = [$\frac{1}{5}$]

© White Rose Maths 2019

3

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

0.2	0.2	0.2	0.2	0.2

Use the bar models to fill in the missing numbers.

$0.2 = \frac{\boxed{2}}{10} = \frac{1}{\boxed{5}}$

$0.4 = \frac{\boxed{4}}{10} = \frac{2}{\boxed{5}}$

$\boxed{0.8} = \frac{\boxed{8}}{10} = \frac{4}{5}$

4 Fill in the missing numbers.

a) $0.54 = \frac{\boxed{54}}{100} = \frac{\boxed{27}}{50}$

b) $0.6 = \frac{\boxed{6}}{10} = \frac{\boxed{3}}{5}$

c) $0.3 = \frac{\boxed{3}}{10} = \frac{\boxed{30}}{100}$

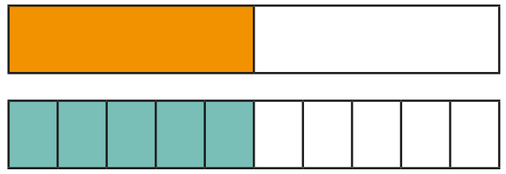
d) $\boxed{0.09} = \frac{9}{100}$

e) $\boxed{0.9} = \frac{9}{10}$

f) $\frac{21}{50} = \frac{\boxed{42}}{100} = \boxed{0.42}$

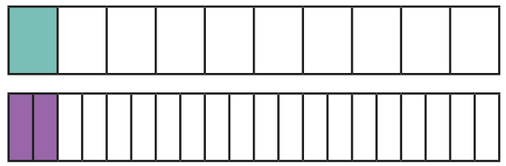
5 Use the bar models to fill in the missing numbers.

a)



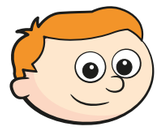
$\frac{1}{2} = \frac{\boxed{5}}{10} = \boxed{0.5}$

b)



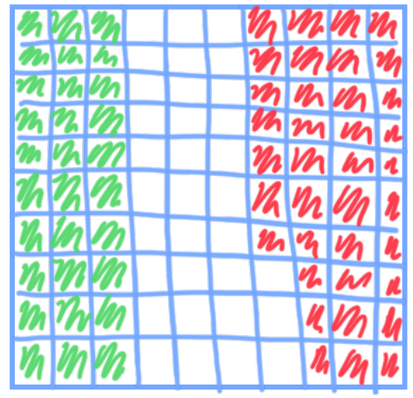
$\boxed{0.1} = \frac{\boxed{1}}{10} = \frac{\boxed{2}}{20}$

6



$0.3 = \frac{3}{10}$ so $0.37 = \frac{37}{10}$

Draw a diagram to show that Ron is wrong.



$0.3 = \frac{3}{10}$

$0.37 = \frac{37}{100}$

© White Rose Maths 2019