

# INTELLIGENT PRACTICE



$$0.1 = \frac{1}{10}$$

$$0.2 =$$

$$0.3 =$$

$$0.4 =$$

$$0.7 =$$



$$0.01 = \frac{1}{100}$$

$$0.02 =$$

$$0.03 =$$

$$0.04 =$$

$$0.65 =$$



$$0.001 = \frac{1}{1000}$$

$$0.003 =$$

$$0.152 =$$

$$\underline{\hspace{2cm}} = 0.304$$

$$\underline{\hspace{2cm}} = 1.235$$



Write a set of rules on how to write a decimal as a fraction.

# DIVE DEEPER 1

1) Complete the sentence.

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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The whole has been divided into \_\_\_\_\_ equal parts.

Each part is worth \_\_\_\_\_.

This is equivalent to \_\_\_\_\_.

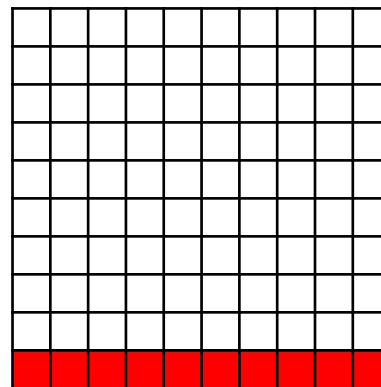
2) Complete the sentence.

The whole has been divided into \_\_\_\_\_ equal parts.

Each part is worth \_\_\_\_\_.

\_\_\_\_\_ parts out of \_\_\_\_\_ are shaded.

This is equivalent to \_\_\_\_\_.

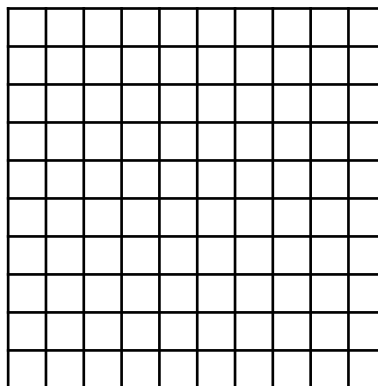


3. Shade 0.17 of the hundred square

\_\_\_\_\_ parts out of \_\_\_\_\_ are shaded.

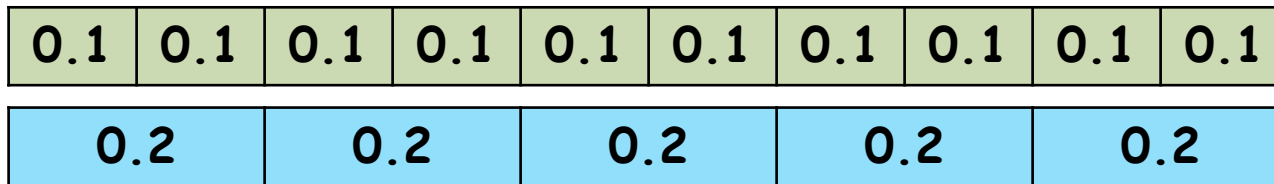
Write 0.17 as a fraction

0.17 = \_\_\_\_\_



# DIVE DEEPER 2

4) Use the bar models to fill in the missing numbers.



$$0.2 = \frac{\quad}{10} = \frac{1}{\quad}$$

$$0.4 = \frac{\quad}{10} = \frac{2}{\quad}$$

$$\frac{\quad}{\quad} = \frac{\quad}{10} = \frac{4}{5}$$

5) Match each decimal to the equivalent fraction.

0.3      0.303

$$\frac{30}{1000}$$

$$\frac{33}{10}$$

0.03      3.3

$$\frac{33}{100}$$

$$\frac{303}{1000}$$

0.33      0.003

$$\frac{3}{1000}$$

$$\frac{300}{1000}$$

# DIVE DEEPER 3

6a) Which of these decimals add together to make  $\frac{3}{25}$ ?

0.1      0.105      0.02      0.015      0.01      0.2

Is there more than one possibility?

b) Which pairs of decimals have a difference of  $\frac{5}{250}$ ?

0.2      0.04      2      1.02      2.04      1.98      1      2.6      10.4

7) Ron says that, ' $0.3 = \frac{3}{10}$  so  $0.37 = \frac{37}{10}$ '.

Draw a diagram to show that Ron is wrong.

8) Convert these decimals into fractions and simplify them as far as you can.

0.25      0.125      0.875      0.35      0.95

ANSWERS COMING UP!

# INTELLIGENT PRACTICE ANSWERS



$$0.1 = \frac{1}{10}$$

$$0.2 = \frac{2}{10}$$

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

$$0.4 = \frac{4}{10}$$

$$0.7 = \frac{7}{10}$$



$$0.01 = \frac{1}{100}$$

$$0.02 = \frac{2}{100}$$

$$0.03 = \frac{3}{100}$$

$$0.04 = \frac{4}{100}$$

$$0.65 = \frac{65}{100}$$



$$0.001 = \frac{1}{1000}$$

$$0.003 = \frac{3}{1000}$$

$$0.152 = \frac{152}{1000}$$

$$\frac{304}{1000} = 0.304$$

$$\frac{1235}{1000} = 1.235$$



# DIVE DEEPER 1 ANSWERS

1) Complete the sentence.

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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The whole has been divided into **10** equal parts.

Each part is worth **0.1**.

This is equivalent to  $\frac{1}{10}$ .

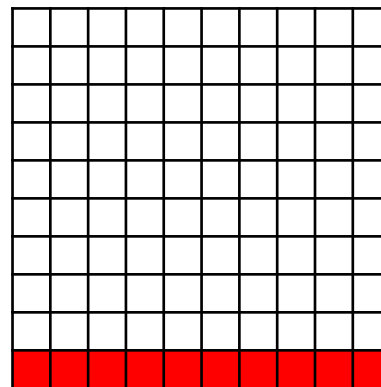
2) Complete the sentence.

The whole has been divided into **100** equal parts.

Each part is worth **0.01**.

**10** parts out of **100** are shaded.

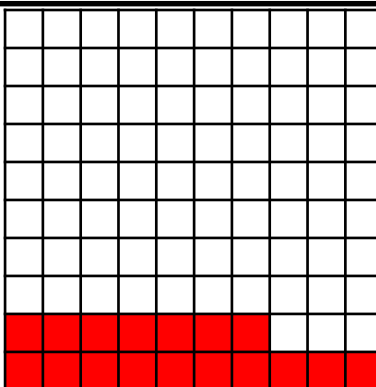
This is equivalent to  $\frac{10}{100}$ .



3. Shade 0.17 of the hundred square

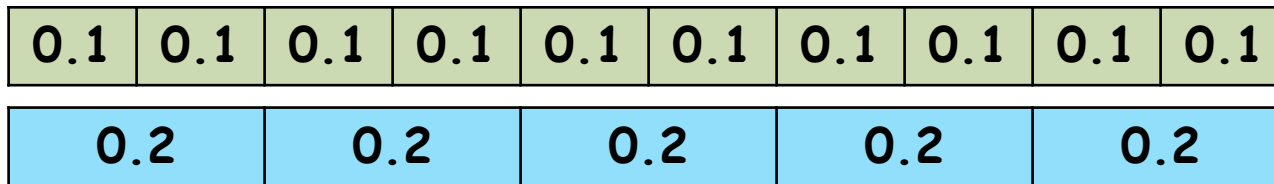
**17** parts out of **100** are shaded.

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



# DIVE DEEPER 2 ANSWERS

4) Use the bar models to fill in the missing numbers.



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

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

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

5) Match each decimal to the equivalent fraction.

$$0.3 = \frac{300}{1000}$$

$$0.303 = \frac{303}{1000}$$

$$0.03 = \frac{30}{1000}$$

$$3.3 = \frac{33}{10}$$

$$0.33 = \frac{33}{100}$$

$$0.003 = \frac{3}{1000}$$



# DIVE DEEPER 3 ANSWERS

6a) Which of these decimals add together to make  $\frac{3}{25}$ ?

0.1      0.105      0.02      0.015      0.01      0.2

Is there more than one possibility?

b) Which pairs of decimals have a difference of  $\frac{2}{250}$ ?

0.2      0.04      2      1.02      2.04      1.98      1      2.6      10.4

7) Ron says that, ' $0.3 = \frac{3}{10}$  so  $0.37 = \frac{37}{10}$ '.

Draw a diagram to show that Ron is wrong.

8) Convert these decimals into fractions and simplify them as far as you can.

0.25      0.125      0.875      0.35      0.95