

WALT write decimals as fractions.

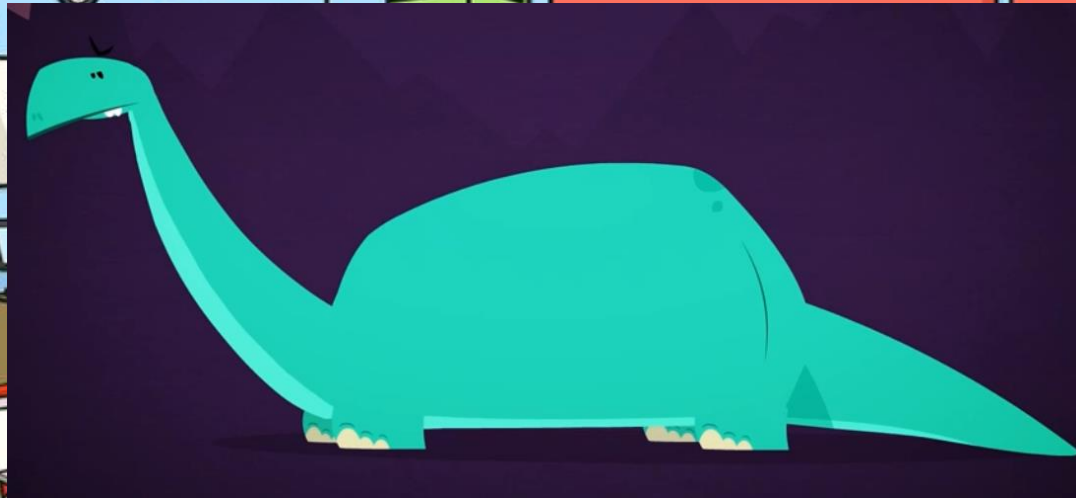
WILF

- Recognise that decimals can be written as fractions.
- Recognise decimals as parts of a whole number.
- Use our knowledge of 100 to create fractions out of decimals with denominators of 10 or 100.



What do you know about decimals?

Click the
dinosaur
for a
recap!



Just like fractions, Decimals are parts of a whole.
Fractions and decimals are therefore showing you the same
thing in a different way.

Let's take a closer look...

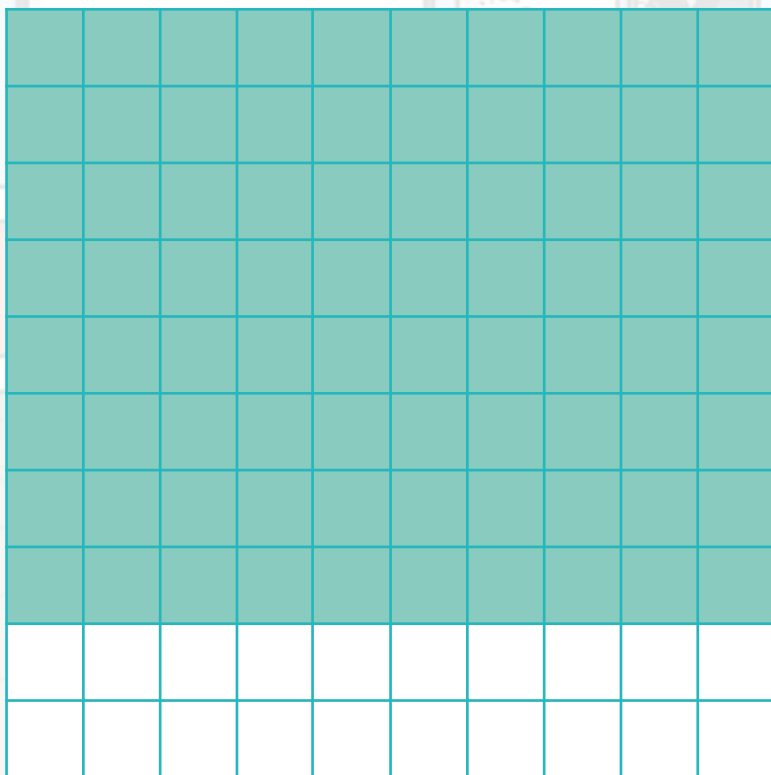
Look at the hundred square.

80 squares out of 100 are shaded in

That is 8 lots of 10, or:

$$\frac{80}{100}$$

$$\frac{8}{10}$$



Decimals represent the same thing!

Think about your place value column.

If each line is $\frac{1}{10}$ of the whole,

that is one tenth in your column.

Ones | Tenths

0 . 1

0 . 8

If I have $\frac{8}{10}$, that's

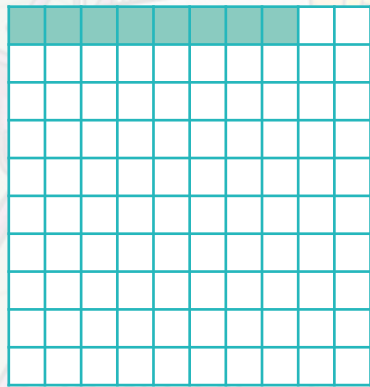
0.8

$$\begin{array}{cccc} \textcircled{0.1} & \textcircled{0.1} & \textcircled{0.1} & \textcircled{0.1} \\ \textcircled{0.1} & \textcircled{0.1} & \textcircled{0.1} & \textcircled{0.1} \end{array} = \begin{array}{cccc} \textcircled{0.10} & \textcircled{0.10} & \textcircled{0.10} & \textcircled{0.10} \\ \textcircled{0.10} & \textcircled{0.10} & \textcircled{0.10} & \textcircled{0.10} \end{array}$$

Have a look at it represented with counters below.


$$= \frac{8}{100}$$

This works the same way for hundredths. If 8 out of 100 squares are shaded in, that is 0.08 - what would it be as a fraction?



=

0.08

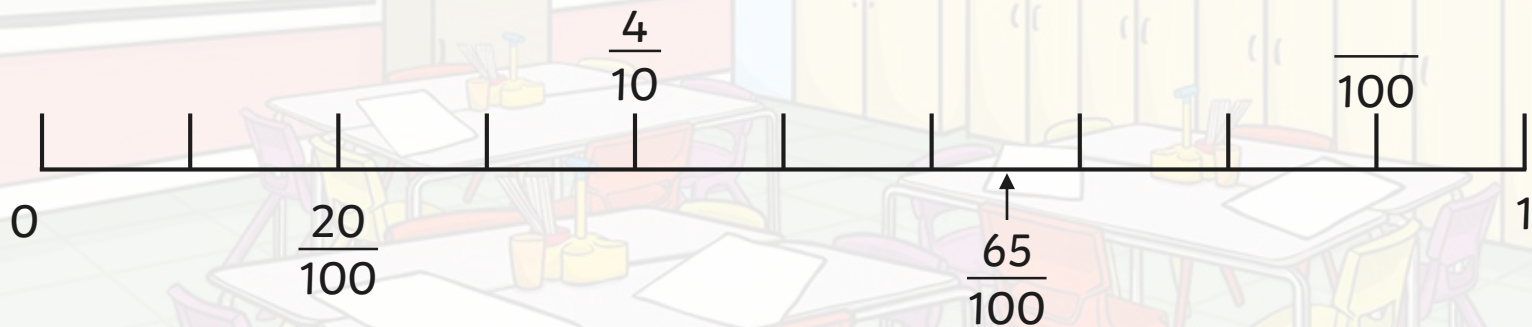
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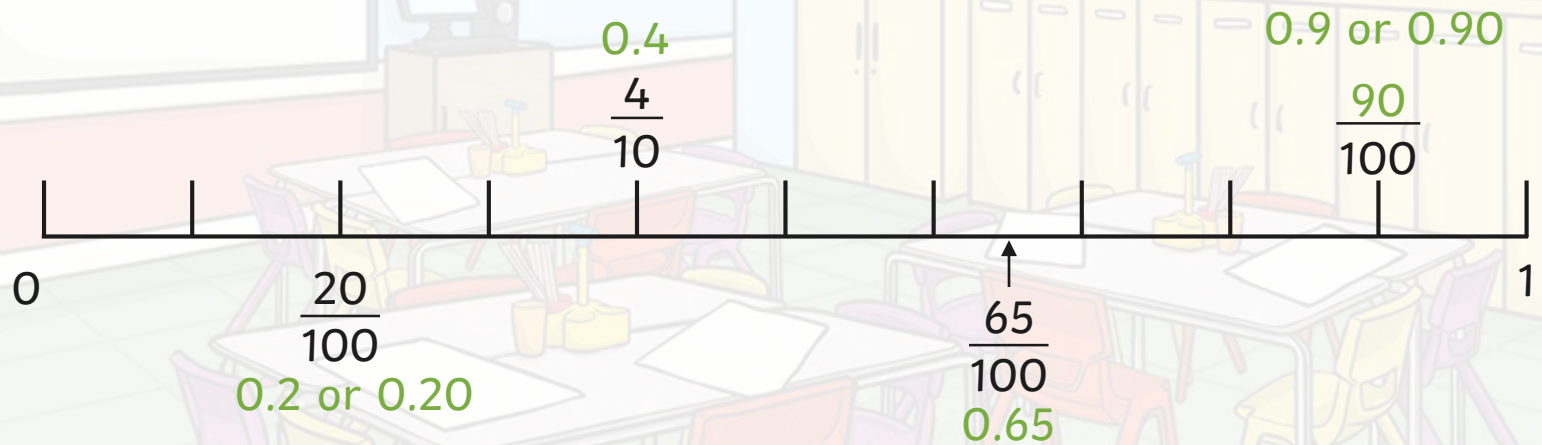
Look at the table below. What is missing? Can any of them be shown with a denominator of 100 or 10, with a whole number as the numerator?

Decimal	Fraction
0.20	$\frac{2}{10}$ or $\frac{20}{100}$
0.05	$\frac{5}{100}$
0.6	$\frac{6}{10}$
0.73	$\frac{73}{100}$
0.45	$\frac{45}{100}$

Remember, as parts of a whole number, decimals fit onto a number line. You can use equivalent fractions for these if they are tenths or hundredths. Please fill in the gaps and write each fraction as a decimal.

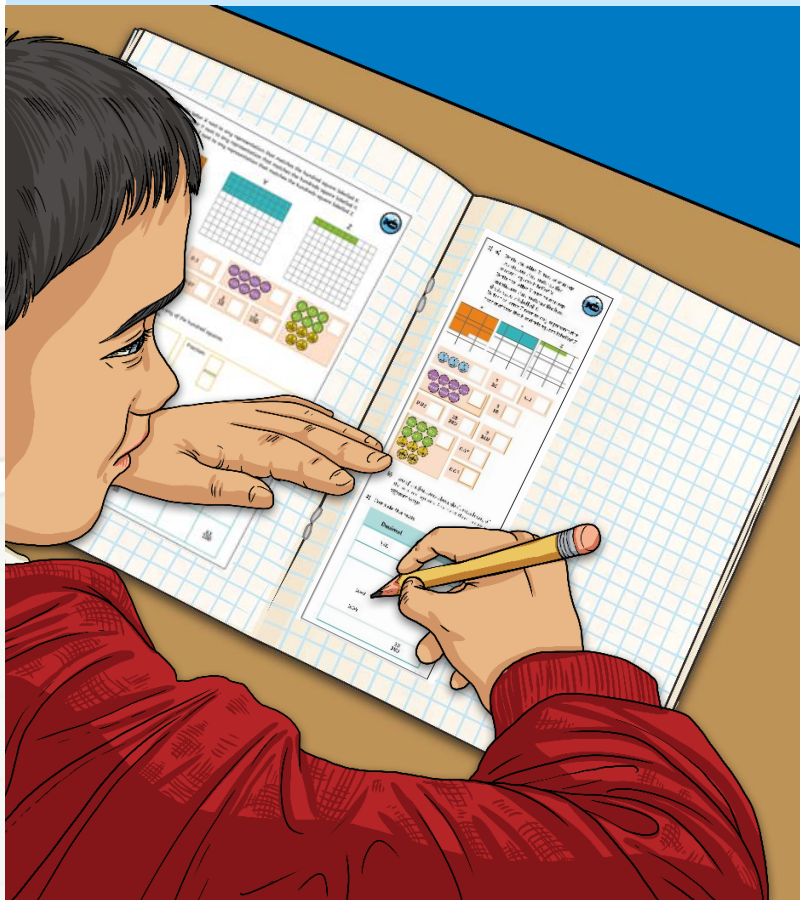


Check your answers! 😊



Challenge time!

Time to complete your challenge for today.



1) Write a...

Section

0.20 = $\frac{1}{5}$
0.08 = $\frac{2}{25}$
0.35 = $\frac{7}{20}$
0.7 = $\frac{7}{10}$

2) a) In a...

b) Which...

3) Complete...

Number

1) a) Write the letter X next to any representation that matches the hundred square labelled X. Write the letter Y next to any representation that matches the hundred square labelled Y. Write the letter Z next to any representation that matches the hundred square labelled Z.

X Y Z

0.03 $\frac{65}{100}$ 0.65 0.07 $\frac{3}{10}$ $\frac{7}{100}$

b) Two of the fractions above don't match any of the hundred squares. Represent them in three different ways.

Fraction:

Fraction:

2) Complete this table.

Decimal	0.9		0.49	0.04	
Fraction	$\frac{9}{10}$	$\frac{5}{10}$			$\frac{4}{100}$

If you finish and would like a challenge...



Parvinder is thinking of a number. It is greater than $\frac{4}{10}$ but less than 0.65. Which of these representations could it be?

Explain how you know if it is or isn't.



No.

If we change all the numbers into hundredths:

$$\frac{4}{10} = \frac{40}{100} \quad 0.65 = \frac{65}{100} \quad 0.9 = \frac{90}{100}$$

$\frac{90}{100}$ does not fit between $\frac{4}{10}$ and 0.65.

fifty-five hundredths

Yes.

If we change all the numbers into hundredths:

$$\frac{4}{10} = \frac{40}{100} \quad 0.65 = \frac{65}{100}$$

$\frac{55}{100}$ does fit between $\frac{4}{10}$ and 0.65.

For if you finish your work and want a challenge!



Complete the part-whole model.
Use at least one decimal and
one fraction:

There are lots of different ways to
answer this question!

