Key Instant Recall Facts

Year 6 – Spring 1

Week 2

I can convert between decimals, fractions and percentages.

$\frac{1}{2} = 0.5$

$\frac{1}{4} = 0.25$

$\frac{3}{4} = 0.75$

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

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

$\frac{3}{5} = 0.6$

$\frac{9}{10} = 0.9$

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

$\frac{7}{100} = 0.07$

$\frac{21}{100} = 0.21$

$\frac{75}{100} = 0.75$

$\frac{99}{100} = 0.99$

Key Vocabulary

How many **tenths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a **fraction**?

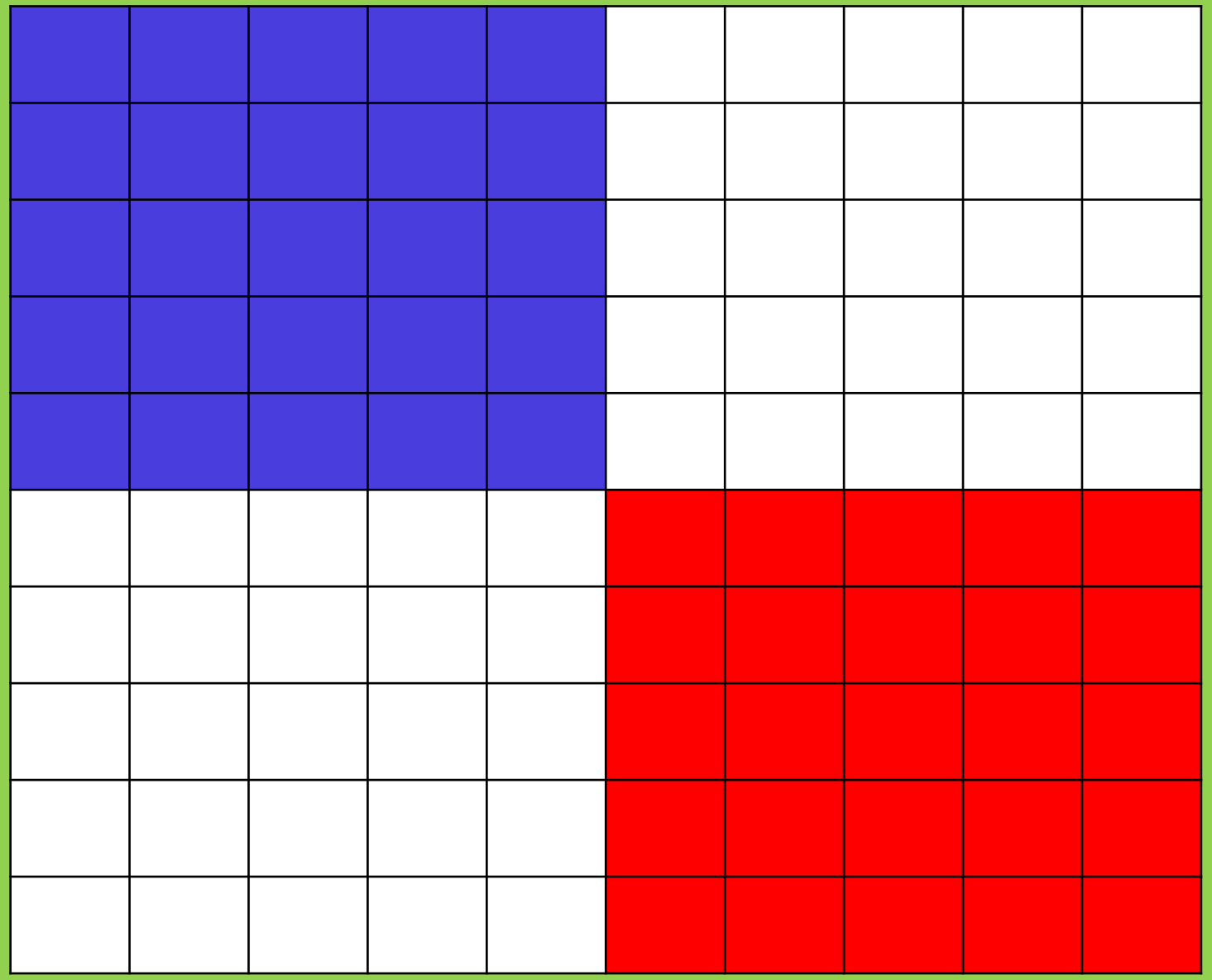
Write ¼ as a **decimal**?

Wed

Write the equivalent decimal and percentage to the following:

$\frac{1}{2}$ =	$\frac{3}{4}$ =	$\frac{1}{5}$ =	$\frac{1}{3}$ =
$\frac{4}{5}$ =	$\frac{3}{8}$ =	$\frac{1}{10}$ =	$\frac{1}{6}$ =
$\frac{7}{10}$ =	$\frac{2}{5}$ =	$\frac{5}{8}$ =	$\frac{7}{20}$ =

RECALL



What fraction is shaded altogether?

What fraction is shaded in blue?

What percentage is shaded altogether?

What percentage is shaded red?

Can you give any of these as a decimal?

L.O.- TO FIND EQUIVALENT FRACTIONS, DECIMALS AND PERCENTAGES

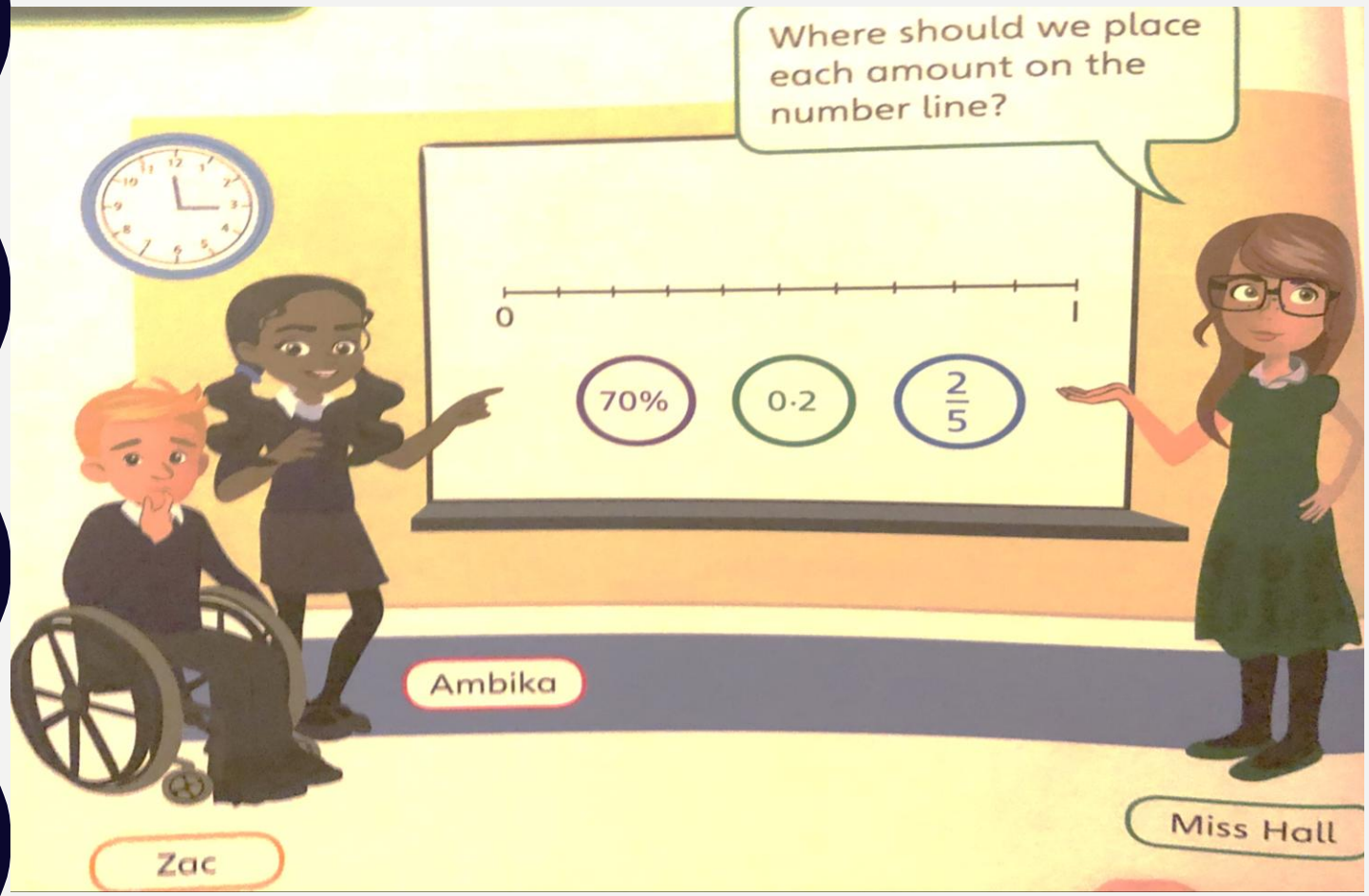
SOME WILL EVEN: Identify equivalence of ALL FDP and use to problem solve.

SOME WILL: Identify equivalence of unit FDP.
(whole, half, quarters, tenths, fifths)

MOST WILL: Use understanding of place value to help convert.

ALL WILL: Use number lines and 100 square to help find equivalents.

GUIDED PRACTICE – MY TURN



1) Help Ambika and Zac to place the amounts on the number line.

2) Where would $\frac{19}{20}$ go?

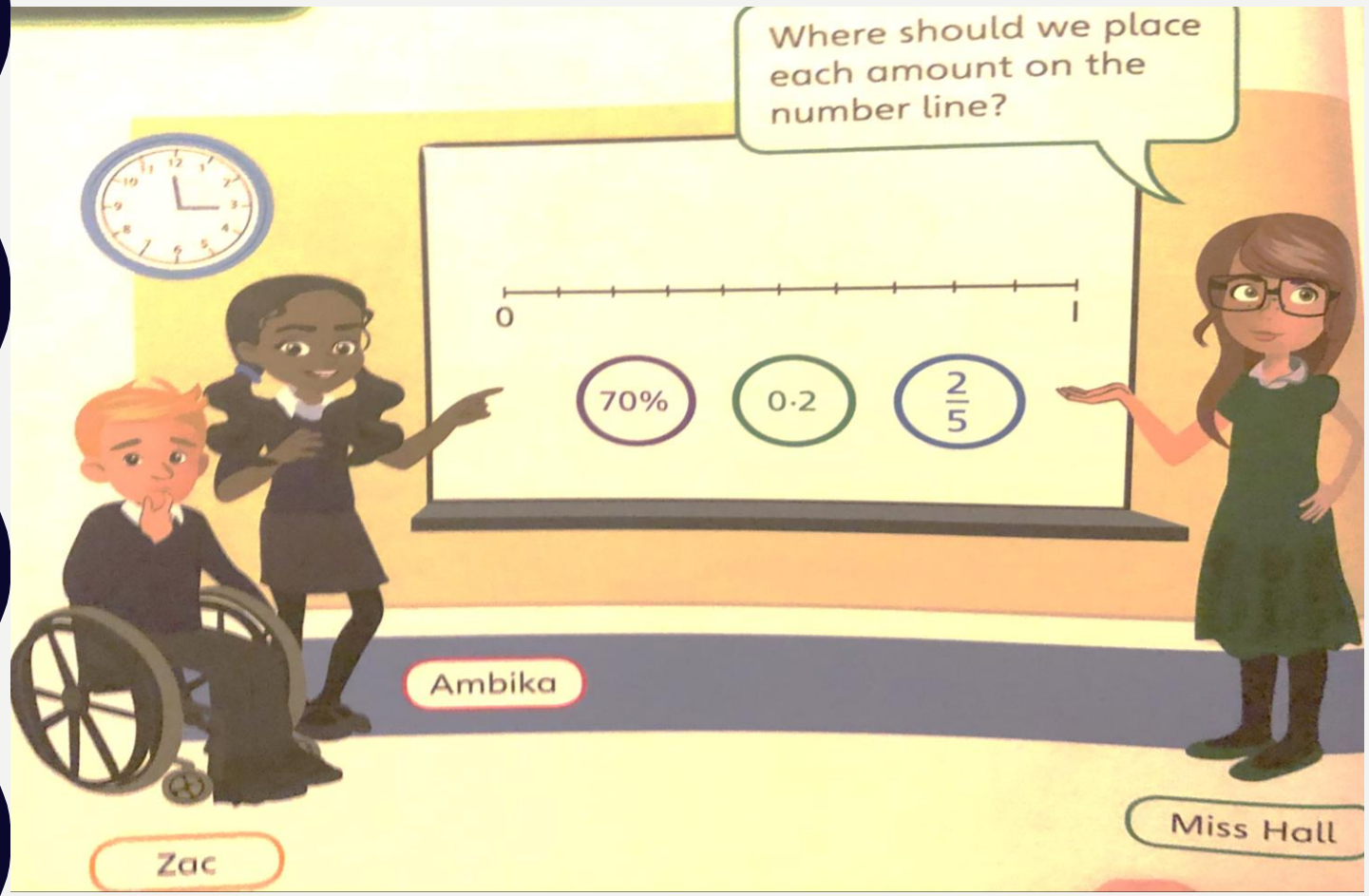
help

Draw the number line and use a blank 100 square to help you.

CHALLENGE!

What other fractions, decimals and percentages can you place on the number line? Explain how you know you are correct using the word 'EQUIVALENT'.

GUIDED PRACTICE – OUR TURN



1) Help Ambika and Zac to place the amounts on the number line.

2) Where would $\frac{19}{20}$ go?

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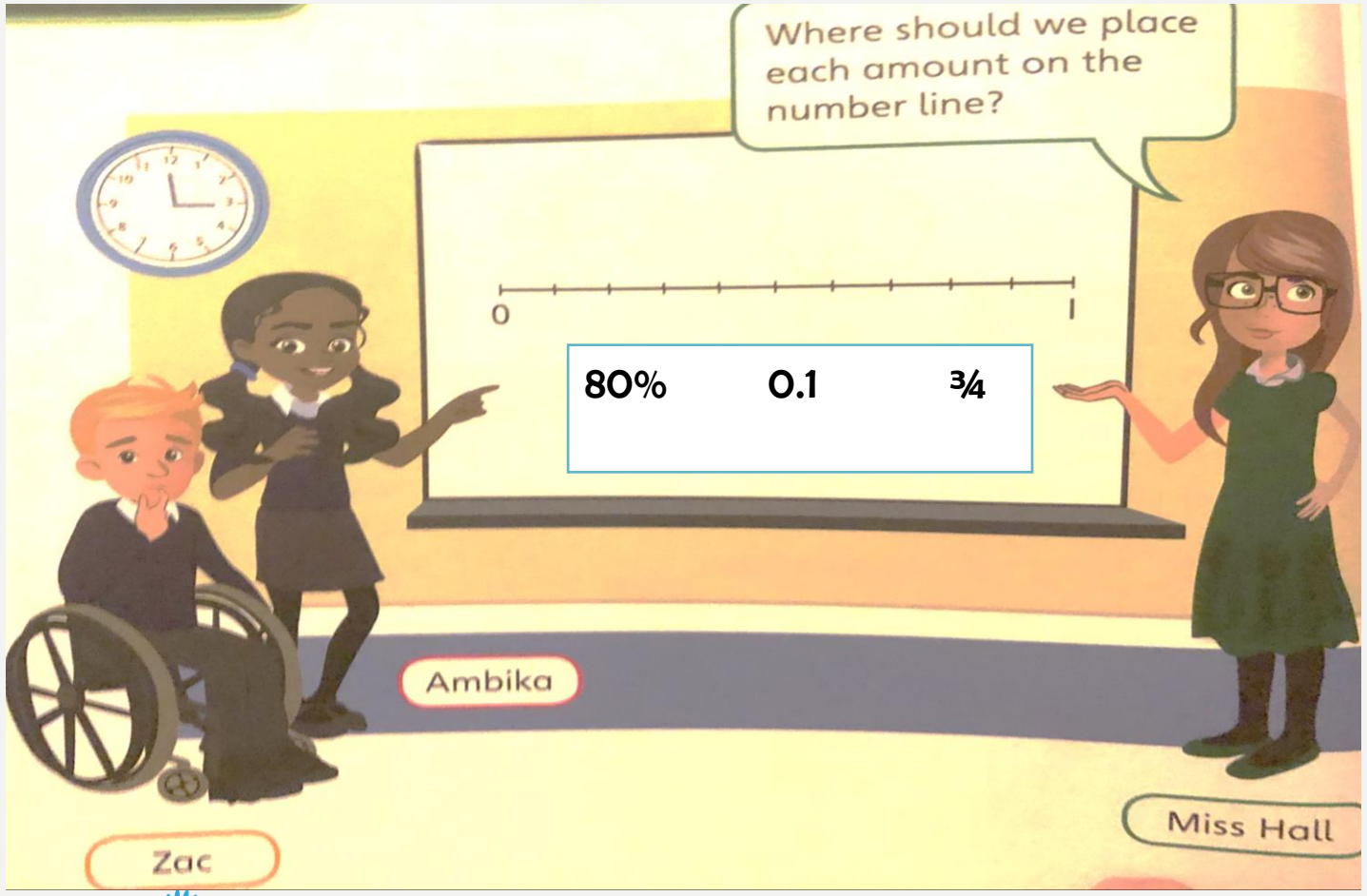
Draw the number line and use a blank 100 square to help you.

CHALLENGE!

What other fractions, decimals and percentages can you place on the number line? Explain how you know you are correct using the word 'EQUIVALENT'.

GUIDED PRACTICE – YOUR TURN



1) Help Ambika and Zac to place the amounts on the number line.

2) Where would $\frac{34}{100}$ go?

help

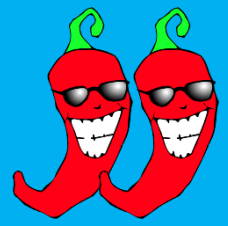
Draw the number line and use a blank 100 square to help you.

CHALLENGE!

What other fractions, decimals and percentages can you place on the number line? Explain how you know you are correct using the word 'EQUIVALENT'.

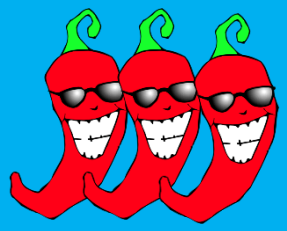
Intelligent Practice

F	D	P
$\frac{100}{100} = \frac{1}{1}$	1.0	100%
		50%
		10%



F	D	P
$\frac{25}{100}$		
$\frac{75}{100}$		
$\frac{20}{100}$		

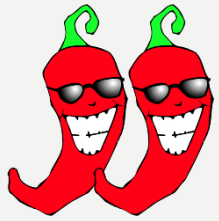
F	D	P
$\frac{1}{100}$		
	0.3	
		90%



F	D	P
$\frac{72}{100}$		
	0.41	
		5%
	0.99	

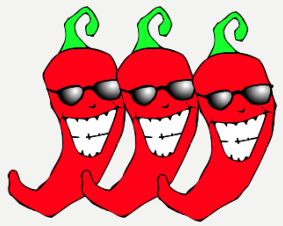
Intelligent Practice

F	D	P
$\frac{100}{100} = \frac{1}{1}$	1.0	100%
$\frac{50}{100} = \frac{1}{2}$	0.5	50%
$\frac{10}{100} = \frac{1}{10}$	0.1	10%



F	D	P
$\frac{25}{100}$	0.25	25%
$\frac{75}{100}$	0.75	75%
$\frac{20}{100}$	0.2	20%

F	D	P
$\frac{1}{100}$	0.01	1%
$\frac{30}{100} = \frac{3}{10}$	0.3	30%
$\frac{90}{100} = \frac{9}{10}$	0.9	90%

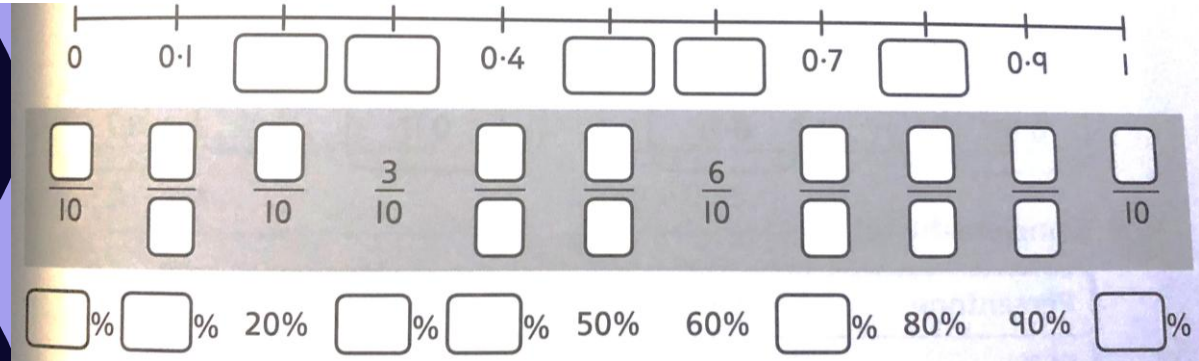


F	D	P
$\frac{72}{100}$	0.72	72%
$\frac{41}{100}$	0.41	41%
$\frac{5}{100} = \frac{1}{20}$	0.05	5%
$\frac{99}{100}$	0.99	99%

DIVE DEEPER 1

1)

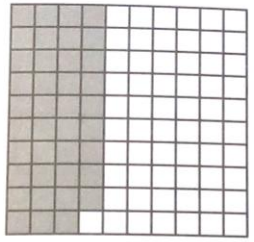
Complete the equivalent decimals, fractions and percentages for this number line.



2)

Write the fraction, decimal and percentage represented in each diagram.

a)

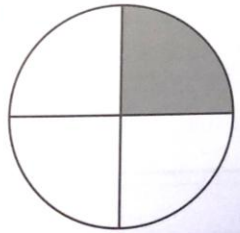


$\frac{\square}{\square} \cdot \frac{\square}{\square} = \frac{\square}{\square} = \square\%$

c)

$\frac{\square}{\square} \cdot \frac{\square}{\square} = \frac{\square}{\square} = \square\%$

b)



$\frac{\square}{\square} \cdot \frac{\square}{\square} = \frac{\square}{\square} = \square\%$

d)

$\frac{\square}{\square} \cdot \frac{\square}{\square} = \frac{\square}{\square} = \square\%$

3)

Match the equivalent amounts.

$\frac{17}{100}$	$\frac{7}{100}$	70%	71%
0·07	0·71	0·17	0·7

4)

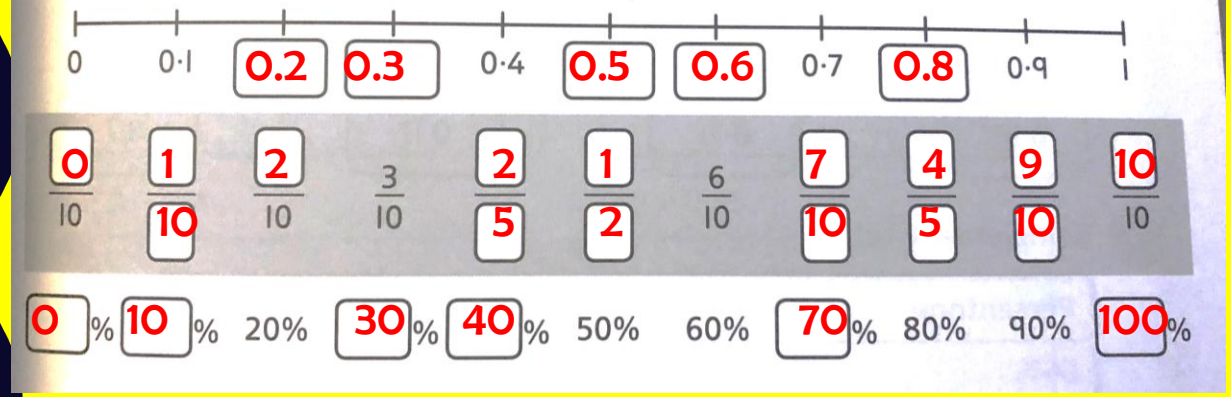
Which is the odd one out? Explain your answer.

0·1	$\frac{2}{20}$	10%	$\frac{1}{10}$	0·01	$\frac{10}{100}$

DIVE DEEPER 1

1)

Complete the equivalent decimals, fractions and percentages for this number line.

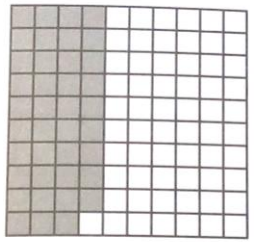


$\frac{0}{10}$	$\frac{1}{10}$	$\frac{2}{10}$	$\frac{3}{10}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{4}{5}$	$\frac{9}{10}$	$\frac{10}{10}$
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

2)

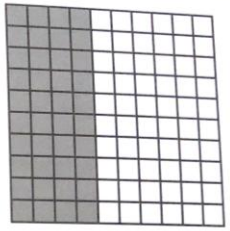
Write the fraction, decimal and percentage represented in each diagram.

a)



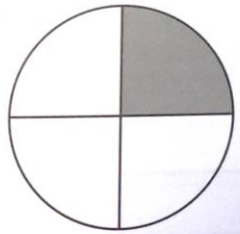
0 · 39 = $\frac{39}{100}$ = 39%

c)



0 · 4 = $\frac{4}{10}$ = 40%

b)



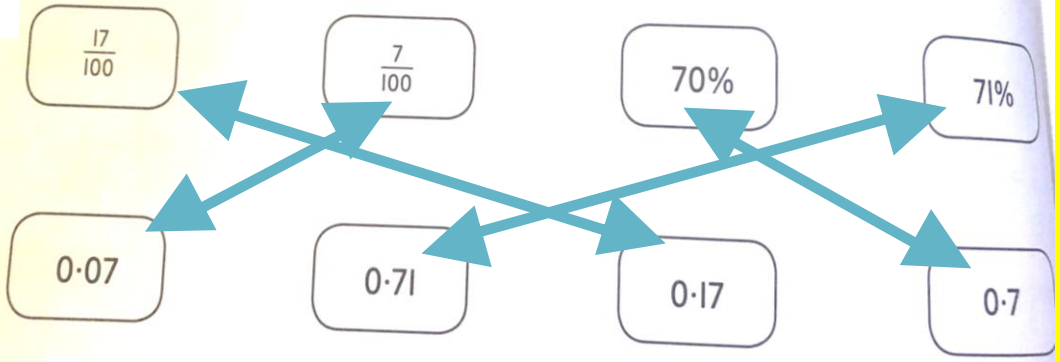
0 · 25 = $\frac{1}{4}$ = 25%

d)

1 · 0 = $\frac{1}{1}$ = 100%

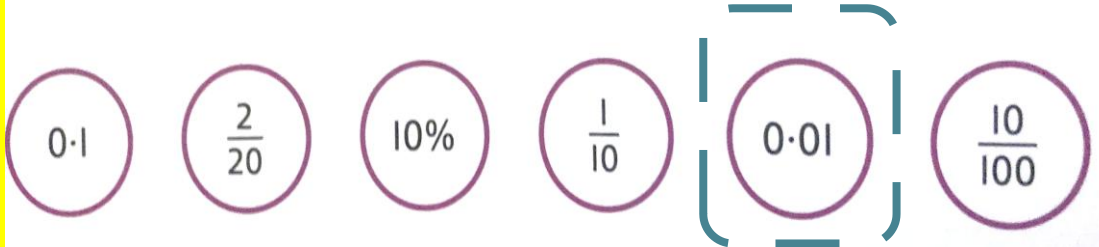
3)

Match the equivalent amounts.

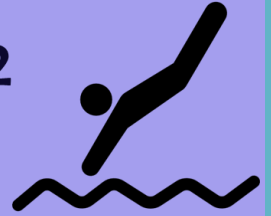


4)

Which is the odd one out? Explain your answer.



DIVE DEEPER 2



5)

$\frac{60}{90}$ ◯ 40%

$\frac{5}{11}$ ◯ 50%

0·251 ◯ $\frac{6}{8}$

$\frac{38}{51}$ ◯ 78%

6)

55% | $\frac{5}{5}$ | 0·5 | 5% | $\frac{5}{25}$ | 0·505

0 ——— 1

□ < □ < □ < □ < □ < □

Jamie says that to convert a decimal to a percentage, all you have to do is remove the '0·' and add '%' to the end. For example, 0·43 = 43%.

So, 0·4 = 4%

and 0·125 = 125%

Jamie

Explain Jamie's mistakes.

DIVE DEEPER 2

5) Use < = > to compare.

$\frac{60}{90}$ > 40%

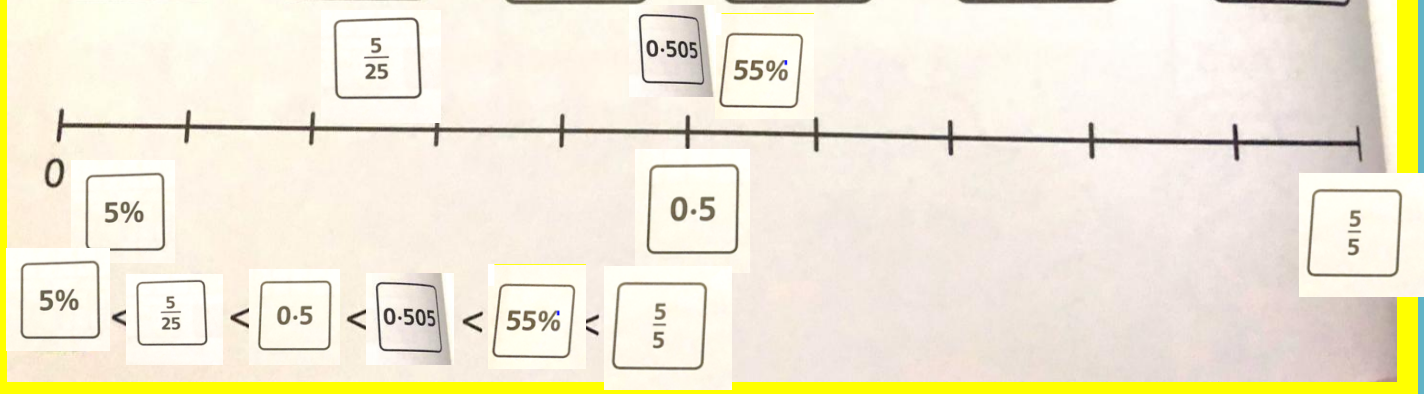
$\frac{5}{11}$ < 50%

0·251 < $\frac{6}{8}$

$\frac{38}{51}$ < 78%

6) Can you order these FDP?

55% $\frac{5}{5}$ 0·5 5% $\frac{5}{25}$ 0·505



CHALLENGE!

Jamie says that to convert a decimal to a percentage, all you have to do is remove the '0·' and add '%' to the end. For example, 0·43 = 43%.

So, 0·4 = 4%

and 0·125 = 125%

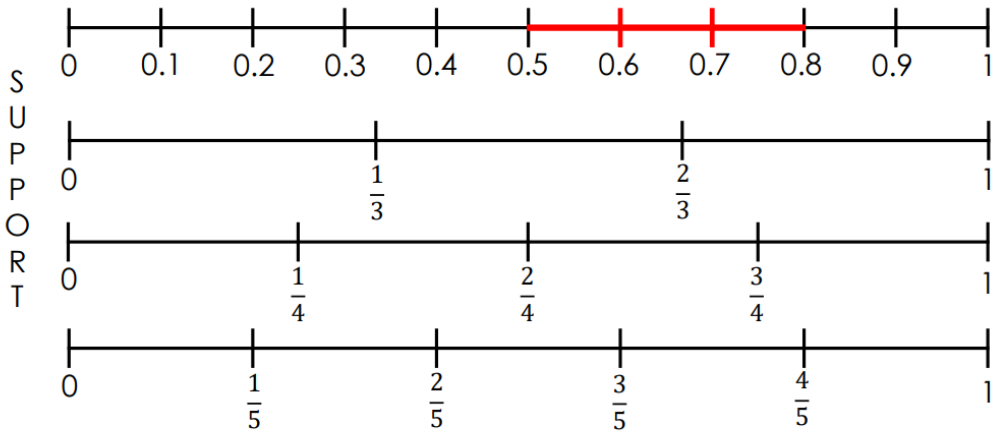
Jamie

Explain Jamie's mistakes.

DIVE DEEPER 3

SUPPORT

The number lines help to show fractions between 0.5 and 0.8:



EXPLAIN

Circle the correct fraction to decimal conversions.

Explain the mistakes.

$\frac{3}{4} = 0.34$ $\quad \frac{4}{5} = 0.6$ $\quad \frac{1}{5} = 0.2$ $\quad \frac{3}{4} = 0.75$ $\quad \frac{1}{3} = 0.3$

EXTEND

How many fractions can be made that are more than 0.5 and less than 0.8 using the following numbers:

4, 5, 6, 8, 10, 12

DIVE DEEPER 3

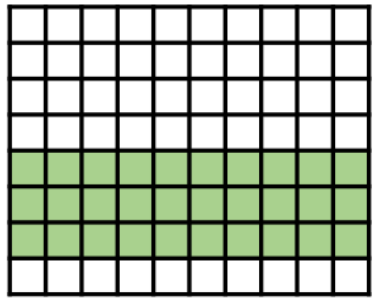
Task 30: Fractions and decimals: $\frac{2}{3}$ $\frac{3}{4}$ $\frac{3}{5}$

Extend: $\frac{4}{6}$ $\frac{5}{8}$ $\frac{6}{8}$ $\frac{6}{10}$ $\frac{8}{12}$

9a. James thinks that 30% of the squares are shaded.

Sam thinks that $\frac{3}{10}$ of the squares are shaded.

Adam thinks that 0.375 of the squares are shaded.



Who is correct? Explain your answer.

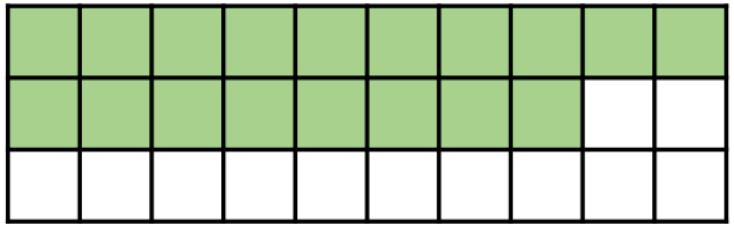
GD

R

9b. Isla thinks that 70% of the squares are shaded.

Ellie thinks that $\frac{9}{15}$ of the squares are shaded.

Hafsa thinks that 0.6 of the squares are shaded.



Who is correct? Explain your answer

GD

R