Steps to Success

Lockdown	
Date	13.1.21
Subject/s	**Maths**
Learning Objective 	To convert between fractions, decimals and percentages

		SA 	TA 
Success Criteria 	I know percentages have a denominator of 100		
	I can use place value to write decimals as fractions		
	I can use my knowledge of division to write fractions as decimals		
Support	Independent Adult Support ( ) Group Work		

Pre-task

Complete the table.

Decimal	Fraction	Percentage
0.35	$\frac{35}{100}$	35%
0.27		
0.6		

Fill in the missing boxes.

0.72 = ☐ % 89% = ☐ %

6% = ☐ % 0.4 = ☐ %

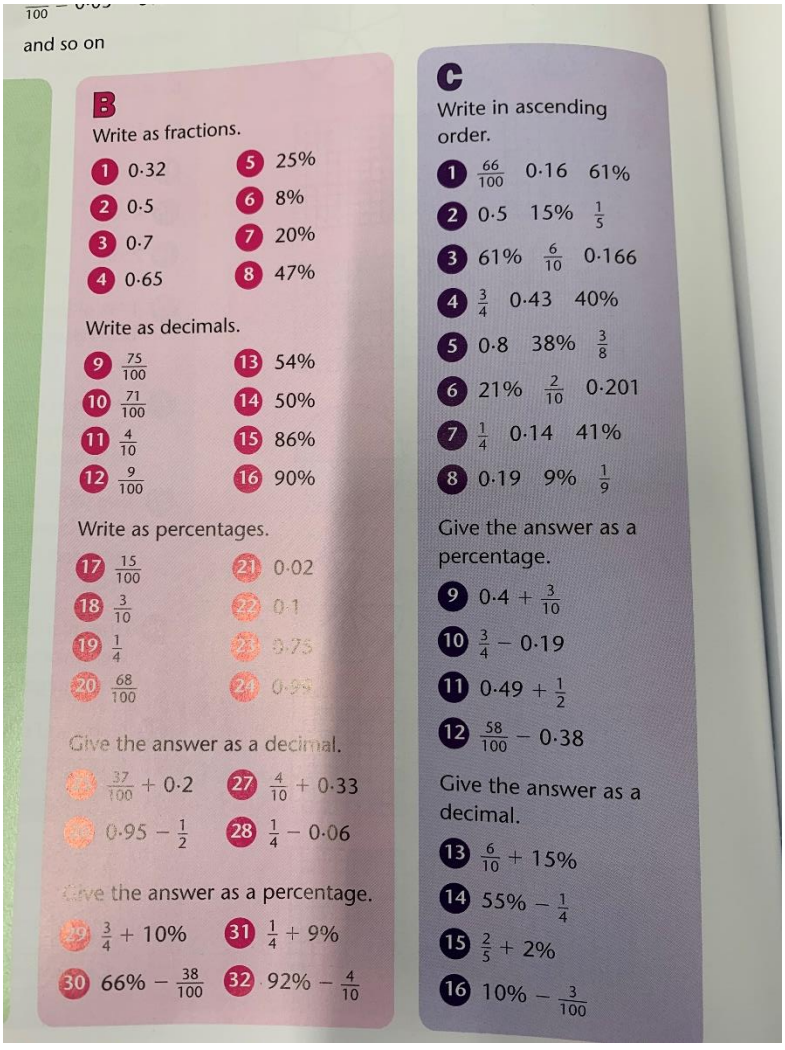
Teacher Led

Make sure you've watched Miss Bailey's video

Fluency

FRACTION	DECIMAL	PERCENT
½		
¾		
	0.6	
		80%
	0.25	
		10%
7/10		
	0.9	

2 dojos if you simplify the fractions!



and so on

B

Write as fractions.

1. 0·32
2. 0·5
3. 0·7
4. 0·65
5. 25%
6. 8%
7. 20%
8. 47%

Write as decimals.

9. $\frac{75}{100}$
10. $\frac{71}{100}$
11. $\frac{4}{10}$
12. $\frac{9}{100}$
13. 54%
14. 50%
15. 86%
16. 90%

Write as percentages.

17. $\frac{15}{100}$
18. $\frac{3}{10}$
19. $\frac{1}{4}$
20. $\frac{68}{100}$
21. 0·02
22. 0·1
23. 0·75
24. 0·99

Give the answer as a decimal.

25. $\frac{37}{100} + 0{\cdot}2$
26. $0{\cdot}95 - \frac{1}{2}$
27. $\frac{4}{10} + 0{\cdot}33$
28. $\frac{1}{4} - 0{\cdot}06$

Give the answer as a percentage.

29. $\frac{3}{4} + 10\%$
30. $66\% - \frac{38}{100}$
31. $\frac{1}{4} + 9\%$
32. $92\% - \frac{4}{10}$

C

Write in ascending order.

1. $\frac{66}{100}$ 0·16 61%
2. 0·5 15% $\frac{1}{5}$
3. 61% $\frac{6}{10}$ 0·166
4. $\frac{3}{4}$ 0·43 40%
5. 0·8 38% $\frac{3}{8}$
6. 21% $\frac{2}{10}$ 0·201
7. $\frac{1}{4}$ 0·14 41%
8. 0·19 9% $\frac{1}{9}$

Give the answer as a percentage.

9. $0{\cdot}4 + \frac{3}{10}$
10. $\frac{3}{4} - 0{\cdot}19$
11. $0{\cdot}49 + \frac{1}{2}$
12. $\frac{58}{100} - 0{\cdot}38$

Give the answer as a decimal.

13. $\frac{6}{10} + 15\%$
14. $55\% - \frac{1}{4}$
15. $\frac{2}{5} + 2\%$
16. $10\% - \frac{3}{100}$

Y5 TYM P82

Fluency Answers

FRACTION	DECIMAL	PERCENT
½	0.5	50%
¾	0.75	75%
$^{60}/_{100}$ or $^{3}/_{5}$	0.6	60%
$^{80}/_{100}$ or $^{4}/_{5}$	0.8	80%
¼	0.25	25%
$^{10}/_{100}$ or $^{1}/_{10}$	0.1	10%
$^{7}/_{10}$	0.7	70%
$^{9}/_{10}$	0.9	90%

Problem Solving and Reasoning

Use it!

Convince me!

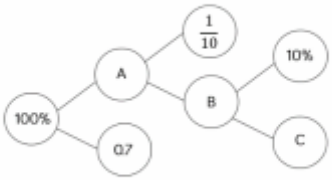
Complete the missing information using a decimal and a percentage.
Can you find more than one solution?

$\frac{1}{4} = 75\% - \square - 3$ tenths

$40\% = \frac{1}{5} + \square + \square$

Use it!

Complete the part whole model. How many different ways can you complete it?



Can you create your own version with different values?

Explain it!

Use the digit cards to complete the missing information.
How many ways can you find?

1	2	3	4	5	6

$\frac{\square}{8} = 0.\square 25 = \square 2.\square\%$

Answers

1. 0.2 or 20%

2. 0.1 and 10%
   0.05 and 15%
   0.01 and 19%

A = 0.3, 30% or $\frac{3}{10}$

B = 0.2, 20%, $\frac{2}{10}$ or $\frac{1}{5}$

C = 0.1, 10% or $\frac{1}{10}$

$\frac{1}{8}$ = 0.125 = 12.5%

or

$\frac{5}{8}$ = 0.625 = 62.5%

Further Challenge

1. Hassan scores 40 out of 80 in a test.

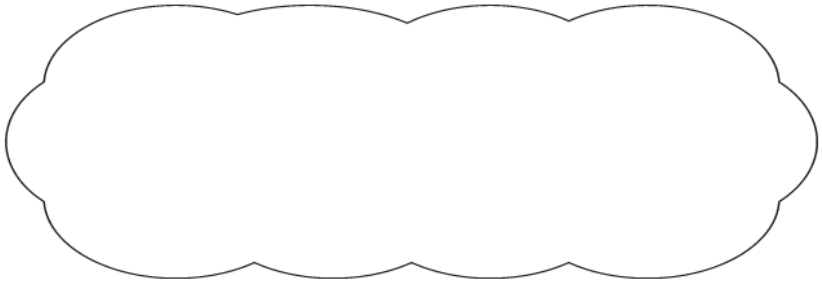
   Who has the higher score?

   Kate scores 40% in the same test.

   Circle **Hassan** or **Kate**.

Hassan / Kate

Explain how you know.



Better Spelling

In Emily's first spelling test, she scored 1 mark out of 5, so she decided to work really hard to improve her scores.

If she scores full marks (5 out of 5) in all her tests after the first, how many more tests does she need to take, in order to increase her average to more than 80%?