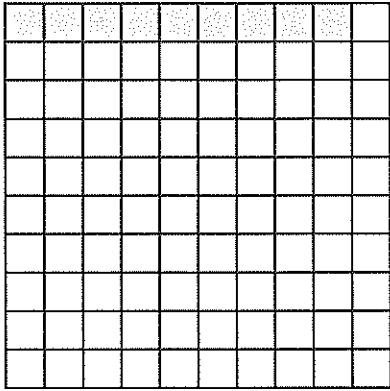


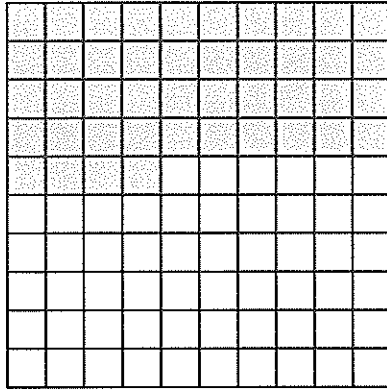
Visual Representations of Fractions, Decimals and Percentages

Aim: I can write percentages as a fraction and as a decimal.

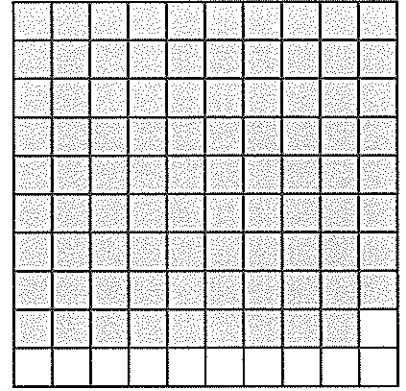
Write the percentage, fraction and decimal represented by the following:



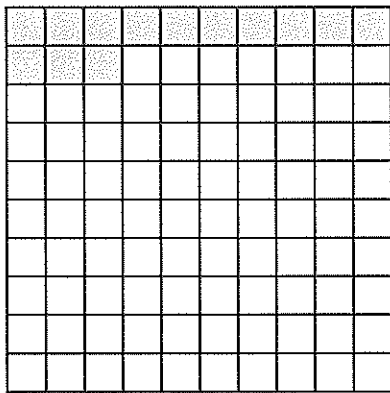
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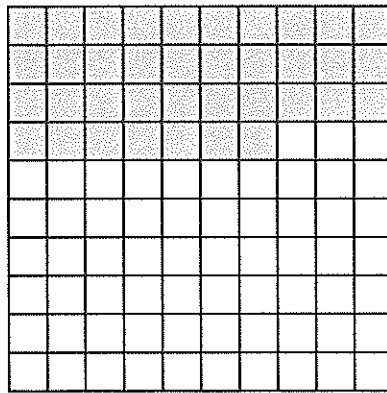
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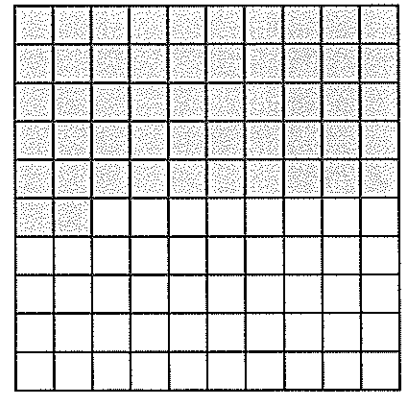
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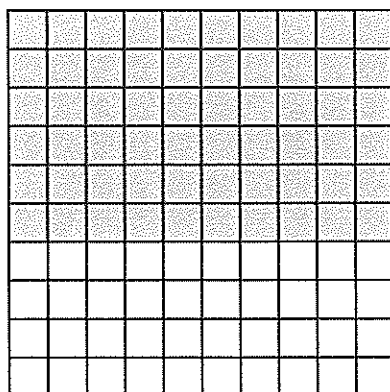
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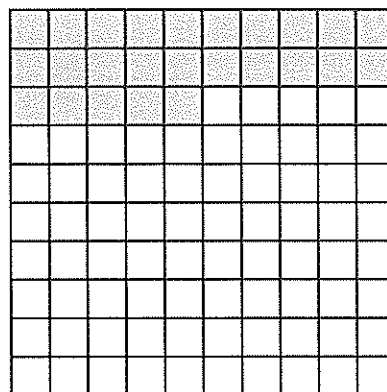
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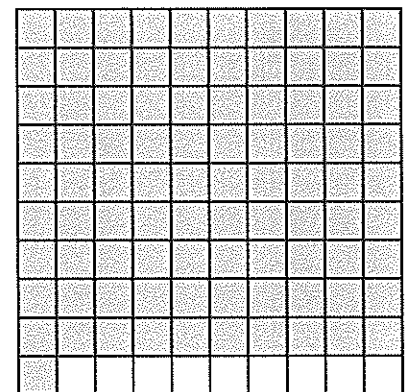
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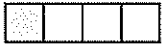


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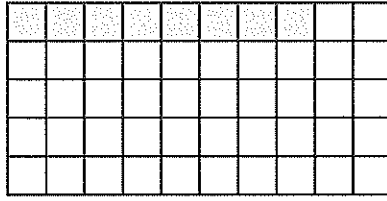


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Write the percentage, fraction and decimal represented by the following:



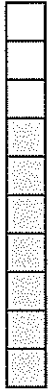
% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square



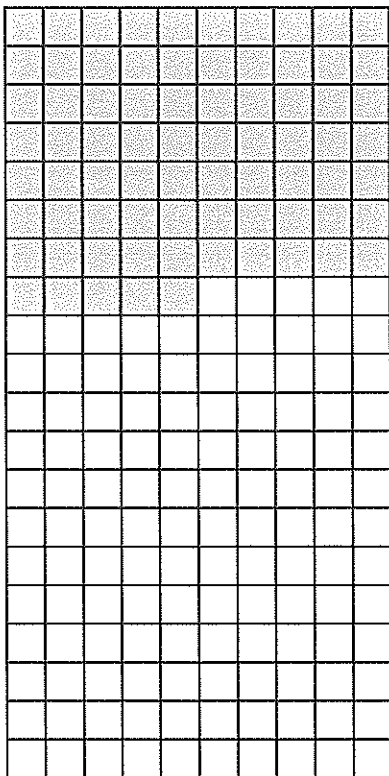
% $\frac{\quad}{\quad}$ \square



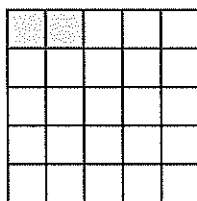
% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square



% $\frac{\quad}{\quad}$ \square

Name:

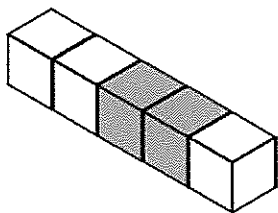
Date:

Key Stage 2 Maths Practice Reasoning: Percentage and Decimal Equivalents

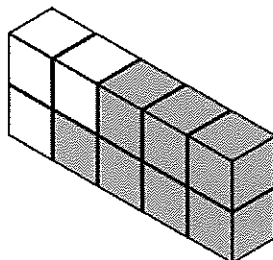


For each model, write the fraction and percentage of the cubes that are black.

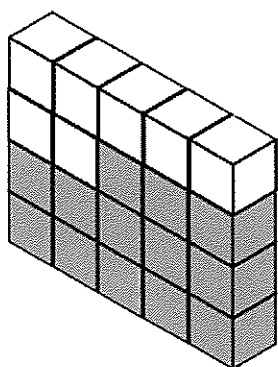
1.



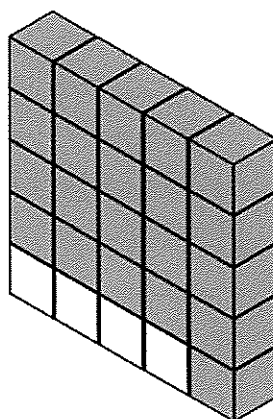
2.



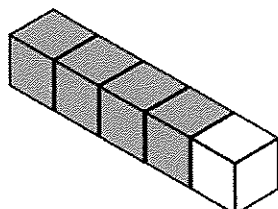
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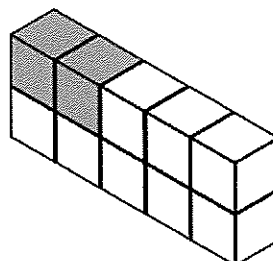
4.



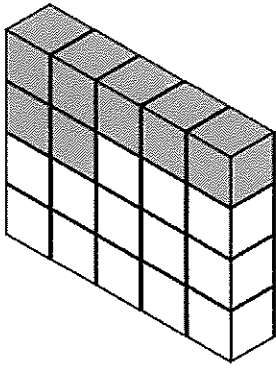
5.



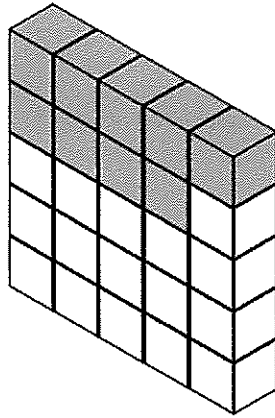
6.



7.



8.



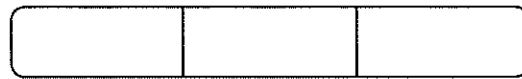
Calculate the values of the following, and order from smallest to largest.

9.

a) 20% of 25

b) $\frac{1}{2}$ of 24

c) $\frac{2}{5}$ of 10



smallest

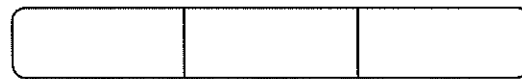
largest

10.

a) $\frac{4}{5}$ of 35

b) 75% of 32

c) $\frac{1}{2}$ of 52



smallest

largest

11.

a) 25% of 20

b) 80% of 10

c) $\frac{1}{20}$ of 80



smallest

largest

12.

a) $\frac{1}{25}$ of 75

b) $\frac{2}{5}$ of 15

c) 40% of 10

--	--	--

smallest

largest

13.

a) 12% of 50

b) $\frac{1}{4}$ of 28

c) $\frac{4}{5}$ of 10

--	--	--

smallest

largest

14.

a) 50% of 48

b) $\frac{1}{5}$ of 125

c) 30% of 70

--	--	--

smallest

largest

15.

a) $\frac{4}{5}$ of 45

b) 25% of 140

c) 60% of 55

--	--	--

smallest

largest

16.

a) 36% of 125

b) $\frac{2}{5}$ of 105

c) $\frac{3}{4}$ of 64

--	--	--

smallest

largest

Complete the table to match the fractions, decimal fractions and percentages.

	Fraction	Decimal Fraction	Percentage
17.			40%
18.		0.50	
19.	$\frac{1}{4}$		
20.			80%
21.		0.30	
22.	$\frac{1}{5}$		
23.		0.75	
24.	$\frac{7}{25}$		

Shade the following shapes so that the given fraction, decimal fraction or percentage is shaded.

25.

80% =

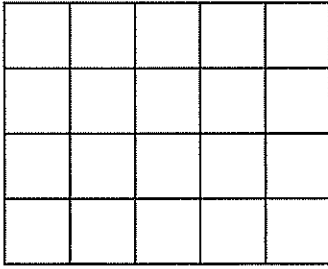
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26.

$\frac{2}{5}$ =

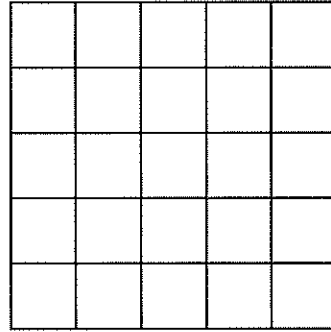
27.

$0.15 =$



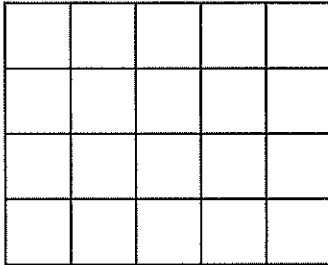
28.

$92\% =$



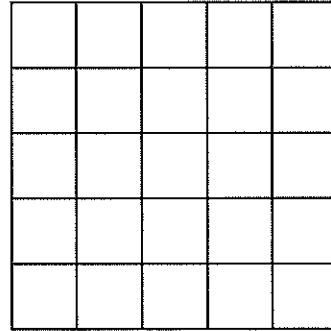
29.

$\frac{3}{10} =$



30.

$12\% =$



Name:

Date:

Key Stage 2 Maths Practice Reasoning: Numbers up to Three Decimal Places



Write the number that is half way between these 2 numbers.

1. 2.5 and 6.4

2. 3.8 and 4.5

3. 6.2 and 9.3

4. 0.24 and 0.56

5. 0.41 and 0.57

6. 0.34 and 0.99

7. 3.67 and 4.09

8. 2.64 and 5.82

9. 4.66 and 8.32

10. 5.12 and 7.33

11. 0.364 and 0.402

12. 0.289 and 0.427

13. 0.583 and 0.907

14. 3.562 and 6.82

15. 0.583 and 0.907

Write the missing number to make the calculation correct.

16.

$$\boxed{} + 0.003 = 1$$

17.

$$0.008 + \boxed{} = 1$$

18.

$$\boxed{} + 0.901 = 1$$

19.

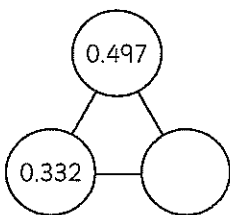
$$\boxed{} + 0.615 = 1$$

20.

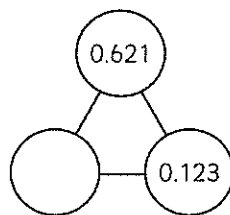
$$0.831 + \boxed{} = 1$$

Write in the missing number to make the top number equal the sum of the bottom two numbers.

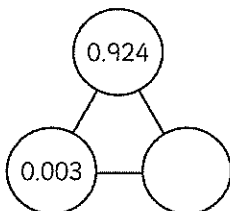
21.



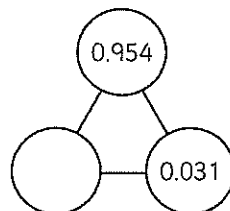
22.



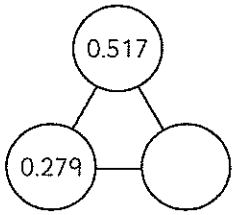
23.



24.

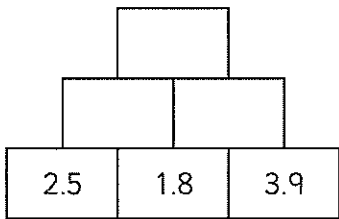


25.

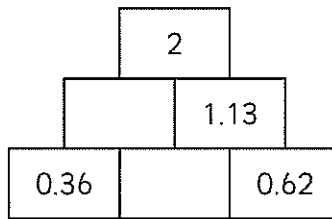


Here is a number pyramid. The number in a box is the sum of the two numbers below it. Write the missing numbers.

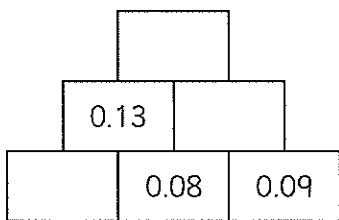
26.



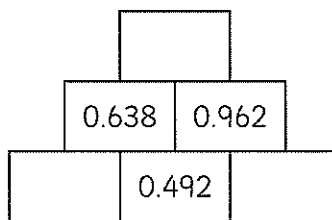
27.



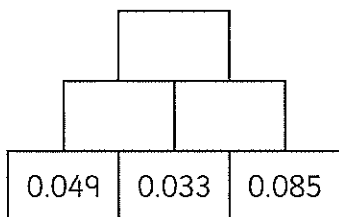
28.



29.



30.



Find the Mixed Equivalent Fractions

LO: I can write the equivalent fraction.

Fill in the numerator to make the fractions equivalent.

1.

$$\frac{1}{2} = \frac{\square}{4}$$

2.

$$\frac{1}{12} = \frac{\square}{24}$$

3.

$$\frac{1}{10} = \frac{\square}{20}$$

4.

$$\frac{1}{8} = \frac{\square}{16}$$

5.

$$\frac{3}{20} = \frac{\square}{40}$$

6.

$$\frac{1}{6} = \frac{\square}{12}$$

7.

$$\frac{1}{5} = \frac{\square}{10}$$

8.

$$\frac{1}{4} = \frac{\square}{16}$$

9.

$$\frac{3}{10} = \frac{\square}{20}$$

10.

$$\frac{1}{3} = \frac{\square}{12}$$

11.

$$\frac{7}{20} = \frac{\square}{40}$$

12.

$$\frac{3}{8} = \frac{\square}{16}$$

13.

$$\frac{2}{5} = \frac{\square}{20}$$

14.

$$\frac{5}{12} = \frac{\square}{24}$$

15.

$$\frac{19}{20} = \frac{\square}{40}$$

16.

$$\frac{3}{5} = \frac{\square}{20}$$

17.

$$\frac{5}{8} = \frac{\square}{16}$$

18.

$$\frac{2}{3} = \frac{\square}{6}$$

19.

$$\frac{3}{4} = \frac{\square}{8}$$

20.

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

21.

$$\frac{5}{6} = \frac{\square}{12}$$

22.

$$\frac{7}{8} = \frac{\square}{16}$$

23.

$$\frac{9}{10} = \frac{\square}{40}$$

24.

$$\frac{11}{12} = \frac{\square}{24}$$

Find the Mixed Equivalent Fractions

LO: I can write the equivalent fraction.

Complete the following fractions to make the fractions equivalent.

1. $\frac{1}{2} = \frac{\square}{8}$

2. $\frac{3}{\square} = \frac{6}{10}$

3. $\frac{3}{4} = \frac{12}{\square}$

4. $\frac{\square}{10} = \frac{1}{2}$

5. $\frac{7}{\square} = \frac{14}{16}$

6. $\frac{2}{3} = \frac{\square}{12}$

7. $\frac{\square}{6} = \frac{4}{24}$

8. $\frac{1}{8} = \frac{2}{\square}$

9. $\frac{2}{10} = \frac{\square}{5}$

10. $\frac{2}{\square} = \frac{1}{3}$

11. $\frac{4}{5} = \frac{16}{\square}$

12. $\frac{\square}{16} = \frac{1}{4}$

13. $\frac{2}{\square} = \frac{8}{20}$

14. $\frac{2}{24} = \frac{\square}{12}$

15. $\frac{\square}{8} = \frac{3}{4}$

16. $\frac{8}{16} = \frac{1}{\square}$

17. $\frac{16}{20} = \frac{\square}{5}$

18. $\frac{7}{\square} = \frac{14}{20}$

19. $\frac{2}{12} = \frac{1}{\square}$

20. $\frac{\square}{16} = \frac{5}{8}$

21. $\frac{1}{\square} = \frac{8}{40}$

22. $\frac{4}{40} = \frac{\square}{20}$

23. $\frac{\square}{3} = \frac{8}{24}$

24. $\frac{10}{12} = \frac{5}{\square}$

Find the Mixed Equivalent Fractions

LO: I can write the equivalent fraction.

Write 3 equivalent fractions to each of these fractions.

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

9. $\frac{1}{6} =$

2. $\frac{1}{3} =$

10. $\frac{11}{12} =$

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

11. $\frac{1}{5} =$

4. $\frac{4}{5} =$

12. $\frac{1}{4} =$

5. $\frac{2}{3} =$

13. $\frac{5}{12} =$

6. $\frac{5}{6} =$

14. $\frac{1}{10} =$

7. $\frac{3}{10} =$

15. $\frac{2}{5} =$

8. $\frac{7}{8} =$

16. $\frac{1}{8} =$

Improper Fractions

1) Ring or write down any mixed number that is equivalent to the improper fraction.

$\frac{13}{3}$	$2\frac{2}{3}$	$4\frac{1}{3}$	$5\frac{1}{3}$	$4\frac{2}{3}$	$2\frac{2}{3}$
$\frac{14}{4}$	$3\frac{2}{4}$	$4\frac{1}{2}$	$3\frac{1}{2}$	$4\frac{1}{4}$	$2\frac{1}{2}$
$\frac{16}{10}$	$1\frac{4}{10}$	$1\frac{2}{5}$	$1\frac{3}{5}$	$1\frac{6}{10}$	$1\frac{8}{10}$
$\frac{20}{6}$	$2\frac{2}{3}$	$3\frac{2}{6}$	$3\frac{2}{3}$	$2\frac{1}{3}$	$3\frac{1}{3}$
$\frac{19}{5}$	$4\frac{1}{5}$	$4\frac{2}{5}$	$3\frac{4}{5}$	$3\frac{3}{5}$	$5\frac{1}{5}$

2) Write the following improper fractions as mixed numbers.

a) $\frac{22}{3} =$ _____

f) $\frac{14}{5} =$ _____

k) $\frac{23}{10} =$ _____

b) $\frac{5}{2} =$ _____

g) $\frac{16}{3} =$ _____

l) $\frac{19}{4} =$ _____

c) $\frac{21}{6} =$ _____

h) $\frac{17}{8} =$ _____

m) $\frac{19}{7} =$ _____

d) $\frac{34}{10} =$ _____

i) $\frac{22}{9} =$ _____

n) $\frac{21}{5} =$ _____

e) $\frac{31}{4} =$ _____

j) $\frac{27}{12} =$ _____

o) $\frac{30}{6} =$ _____

3) Answer these questions, writing your answer as mixed numbers.

a) 27 children sit at tables of 6, filling all the tables where possible. Express how the tables are filled using a mixed number.

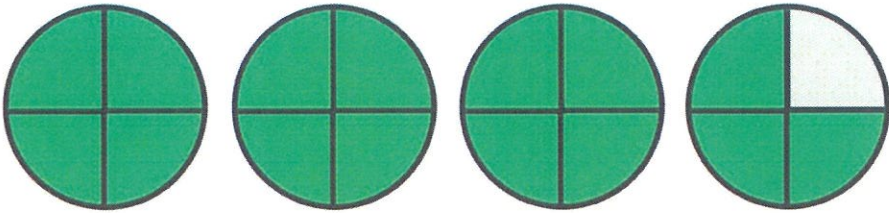
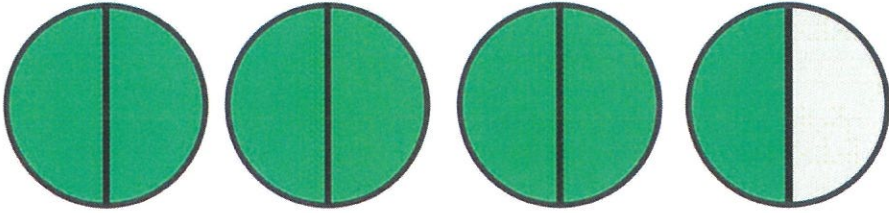

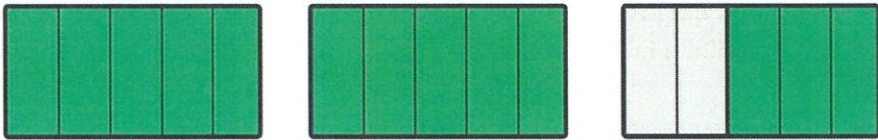
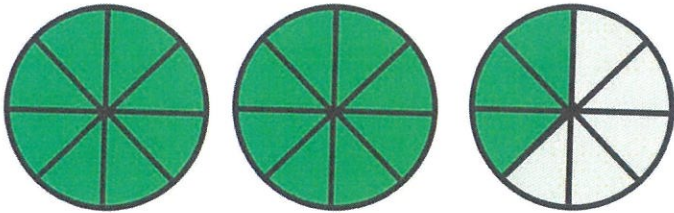
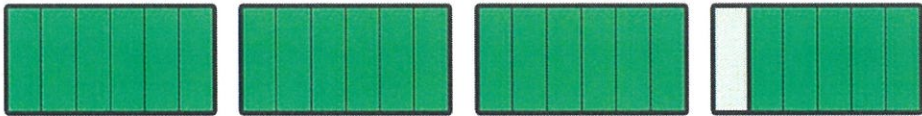
b) A teacher asks 2 children to sort 73 tennis balls into baskets of 10 balls, filling the baskets where possible. Express how the baskets are filled using a mixed number.

c) A pizza van sells pizza slices. Each slice is one quarter of a pizza. At the end of the day the pizza seller works out how many pizzas he has left. On one day he has 9 pieces. How many pizzas does he have left?

d) Write some of your own questions for which the answer is a mixed number.

Improper Fractions

3) Write the improper fractions and mixed numbers represented by the shapes below.

	Improper Fraction		Mixed Number
a)		_____	_____
b)		_____	_____
c)		_____	_____
d)		_____	_____
e)		_____	_____
f)		_____	_____

Add Fractions with Denominators That Are Multiples

Aim: I can add fractions with denominators that are multiples.

$$\frac{2}{3} + \frac{1}{6} = \boxed{}$$

$$\frac{1}{10} + \frac{4}{5} = \boxed{}$$

$$\frac{1}{2} + \frac{1}{4} = \boxed{}$$

$$\frac{1}{5} + \frac{7}{10} = \boxed{}$$

$$\frac{1}{4} + \frac{3}{8} = \boxed{}$$

$$\frac{5}{7} + \frac{3}{14} = \boxed{}$$

$$\frac{1}{3} + \frac{1}{6} = \boxed{}$$

$$\frac{1}{14} + \frac{6}{7} = \boxed{}$$

$$\frac{1}{8} + \frac{1}{2} = \boxed{}$$

$$\frac{2}{7} + \frac{5}{14} = \boxed{}$$

$$\frac{1}{4} + \frac{5}{8} = \boxed{}$$

$$\frac{3}{8} + \frac{1}{16} = \boxed{}$$

$$\frac{1}{2} + \frac{3}{8} = \boxed{}$$

$$\frac{5}{16} + \frac{5}{8} = \boxed{}$$

$$\frac{5}{6} + \frac{1}{12} = \boxed{}$$

$$\frac{2}{9} + \frac{5}{18} = \boxed{}$$

$$\frac{5}{12} + \frac{1}{6} = \boxed{}$$

$$\frac{3}{10} + \frac{7}{20} = \boxed{}$$

$$\frac{2}{5} + \frac{3}{10} = \boxed{}$$

$$\frac{3}{20} + \frac{7}{10} = \boxed{}$$

Add Fractions with Denominators That Are Multiples

Aim: I can add fractions with denominators that are multiples.

$$\frac{11}{12} + \frac{1}{4} = \boxed{}$$

$$\frac{9}{10} + \frac{4}{5} = \boxed{}$$

$$\frac{2}{3} + \frac{5}{6} = \boxed{}$$

$$\frac{1}{12} + \frac{1}{3} = \boxed{}$$

$$\frac{3}{4} + \frac{3}{8} = \boxed{}$$

$$\frac{5}{6} + \frac{7}{12} = \boxed{}$$

$$\frac{7}{8} + \frac{1}{4} = \boxed{}$$

$$\frac{2}{3} + \frac{5}{12} = \boxed{}$$

$$\frac{5}{8} + \frac{1}{2} = \boxed{}$$

$$\frac{3}{4} + \frac{1}{12} = \boxed{}$$

$$\frac{5}{6} + \frac{1}{3} = \boxed{}$$

$$\frac{11}{12} + \frac{1}{4} = \boxed{}$$

$$\frac{1}{2} + \frac{5}{6} = \boxed{}$$

$$\frac{5}{6} + \frac{7}{12} = \boxed{}$$

$$\frac{1}{2} + \frac{7}{8} = \boxed{}$$

$$\frac{11}{12} + \frac{1}{6} = \boxed{}$$

$$\frac{3}{5} + \frac{3}{10} = \boxed{}$$

$$\frac{7}{8} + \frac{5}{16} = \boxed{}$$

$$\frac{7}{10} + \frac{2}{5} = \boxed{}$$

$$\frac{11}{16} + \frac{3}{8} = \boxed{}$$

Add Fractions with Denominators That Are Multiples

Aim: I can add fractions with denominators that are multiples.

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{8} = \boxed{}$$

$$\frac{7}{8} + \frac{3}{4} + \frac{3}{16} = \boxed{}$$

$$\frac{1}{6} + \frac{1}{3} + \frac{5}{12} = \boxed{}$$

$$\frac{1}{2} + \frac{5}{8} + \frac{1}{16} = \boxed{}$$

$$\frac{1}{4} + \frac{5}{8} + \frac{1}{2} = \boxed{}$$

$$\frac{5}{6} + \frac{1}{2} + \frac{7}{12} = \boxed{}$$

$$\frac{5}{6} + \frac{1}{12} + \frac{1}{2} = \boxed{}$$

$$\frac{3}{8} + \frac{3}{4} + \frac{7}{8} = \boxed{}$$

$$\frac{1}{4} + \frac{1}{8} + \frac{1}{16} = \boxed{}$$

$$\frac{2}{3} + \frac{7}{9} + \frac{2}{3} = \boxed{}$$

$$\frac{11}{12} + \frac{5}{6} + \frac{1}{2} = \boxed{}$$

$$\frac{4}{5} + \frac{9}{20} + \frac{3}{10} = \boxed{}$$

$$\frac{5}{8} + \frac{7}{16} + \frac{3}{4} = \boxed{}$$

$$\frac{11}{20} + \frac{3}{5} + \frac{9}{10} = \boxed{}$$

$$\frac{3}{4} + \frac{1}{2} + \frac{5}{8} = \boxed{}$$

$$\frac{7}{10} + \frac{1}{5} + \frac{23}{30} = \boxed{}$$

$$\frac{7}{8} + \frac{3}{16} + \frac{1}{2} = \boxed{}$$

$$\frac{5}{6} + \frac{11}{24} + \frac{5}{12} = \boxed{}$$

$$\frac{1}{16} + \frac{5}{8} + \frac{7}{8} = \boxed{}$$

$$\frac{23}{24} + \frac{11}{12} + \frac{2}{3} = \boxed{}$$