Stewards Academy

Maths Spring 2

Year 7

Blended Learning Booklet

Name:

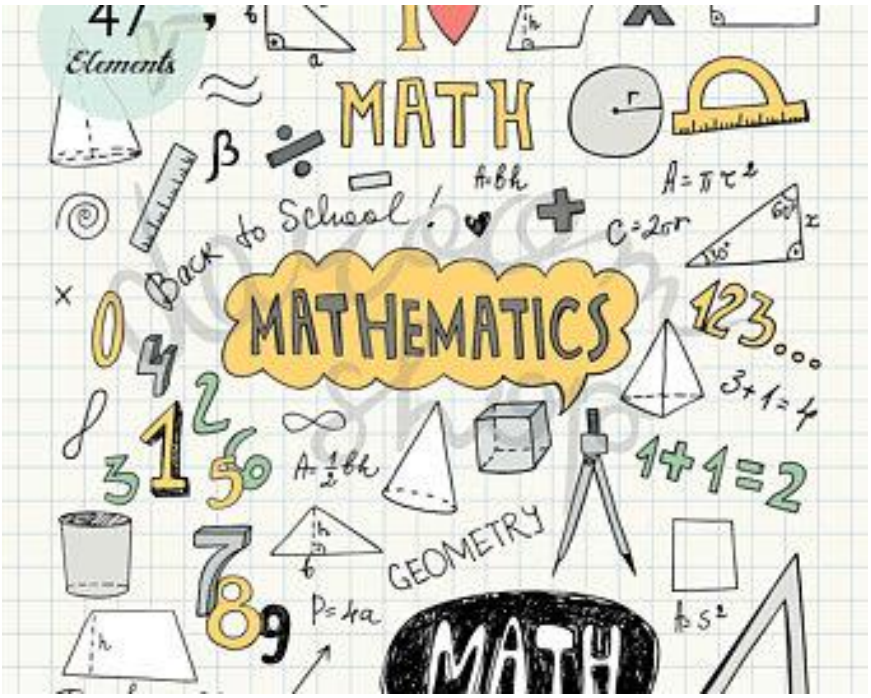
Form:

Each week covers topics you would complete in your 3 Maths lessons that week. Write out the title and LI and then complete the tasks.

All video links are online using the ClassCharts link.

The Knowledge Organiser on page 4 has further practice questions and page numbers linking to your pocket revision guides for all the key information and examples to help you with this unit.

Upload all work onto ClassCharts for feedback.



Stewards Academy

Contents

Other useful information/websites

The school login for MyMaths.co.uk is

stewards

The password is

triangle

Every topic in this booklet is covered on MyMaths.co.uk in the online lessons for further support at home.

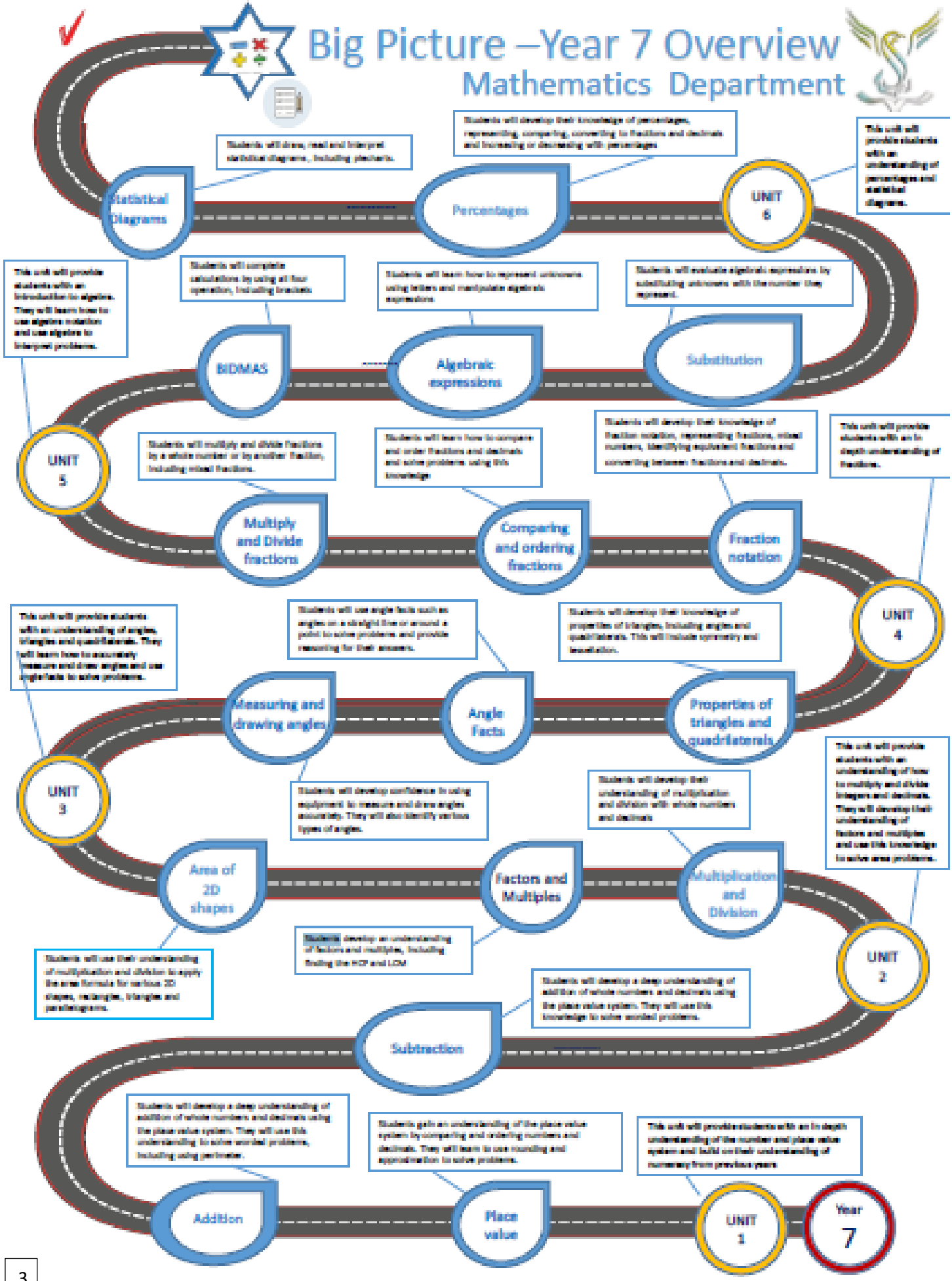
You also have a study guide (the pages you can use for each section are on your Knowledge Organiser – page 4)

Other websites you can look up information from include:

Oak National Academy

BBC Bitesize

MathisFun.com


Big Picture –Year 7 Overview
Mathematics Department
Statistical Diagrams
Students will draw, read and interpret statistical diagrams, including pie charts.
Percentages
Students will develop their knowledge of percentages, representing, comparing, converting to fractions and decimals and increasing or decreasing with percentages
UNIT 6
This unit will provide students with an understanding of percentages and statistical diagrams.
BIDMAS
Students will complete calculations by using all four operation, including brackets
Algebraic expressions
Students will learn how to represent unknowns using letters and manipulate algebraic expressions
Substitution
Students will evaluate algebraic expressions by substituting unknowns with the number they represent.
This unit will provide students with an introduction to algebra. They will learn how to use algebra notation and use algebra to interpret problems.
UNIT 5
Multiply and Divide fractions
Students will multiply and divide fractions by a whole number or by another fraction, including mixed fractions.
Comparing and ordering fractions
Students will learn how to compare and order fractions and decimals and solve problems using this knowledge
Fraction notation
Students will develop their knowledge of fraction notation, representing fractions, mixed numbers, identifying equivalent fractions and converting between fractions and decimals.
This unit will provide students with an in depth understanding of fractions.
UNIT 4
Measuring and drawing angles
Students will develop confidence in using equipment to measure and draw angles accurately. They will also identify various types of angles.
Angle Facts
Students will use angle facts such as angles on a straight line or around a point to solve problems and provide reasoning for their answers.
Properties of triangles and quadrilaterals
Students will develop their knowledge of properties of triangles, including angles and quadrilaterals. This will include symmetry and tessellation.
This unit will provide students with an understanding of angles, triangles and quadrilaterals. They will learn how to accurately measure and draw angles and use angle facts to solve problems.
UNIT 3
Area of 2D shapes
Students will use their understanding of multiplication and division to apply the area formula for various 2D shapes, rectangles, triangles and parallelograms.
Factors and Multiples
Students develop an understanding of factors and multiples, including finding the HCF and LCM
Multiplication and Division
Students will develop their understanding of multiplication and division with whole numbers and decimals
This unit will provide students with an understanding of how to multiply and divide integers and decimals. They will develop their understanding of factors and multiples and use this knowledge to solve area problems.
UNIT 2
Subtraction
Students will develop a deep understanding of addition of whole numbers and decimals using the place value system. They will use this knowledge to solve worded problems.
Addition
Students will develop a deep understanding of addition of whole numbers and decimals using the place value system. They will use this understanding to solve worded problems, including using per imeter.
Place value
Students gain an understanding of the place value system by comparing and ordering numbers and decimals. They will learn to use rounding and approximation to solve problems.
This unit will provide students with an in depth understanding of the number and place value system and build on their understanding of numeracy from previous years
UNIT 1
Year 7

Year 7 Unit
Fractions
Revision guide reference pages
Pages 24 – 33.
Improper fraction
Mixed number

Stewards Academy

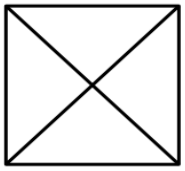
Week 1:

- **LI: I can represent fractions using area diagrams, bar models and number lines**

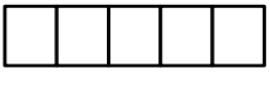
Demonstration Video: https://www.youtube.com/watch?v=QqvlKwFzoB4

Tasks:

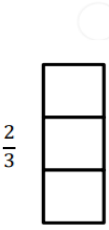
1 Shade in the shapes to represent the following fractions:



$\frac{1}{4}$

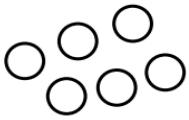


$\frac{1}{5}$

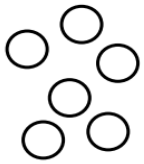


$\frac{2}{3}$

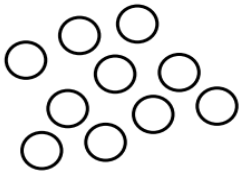
2 Shade in the fraction of counters indicated.



a) $\frac{1}{2}$

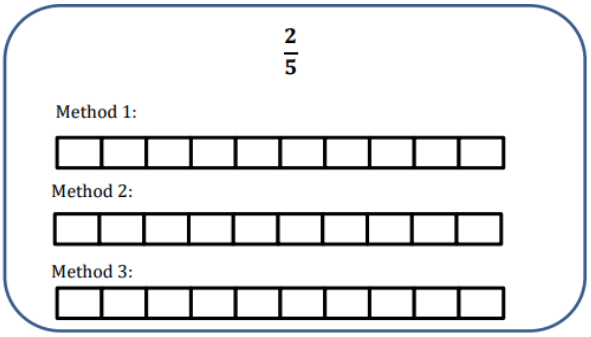


b) $\frac{1}{3}$

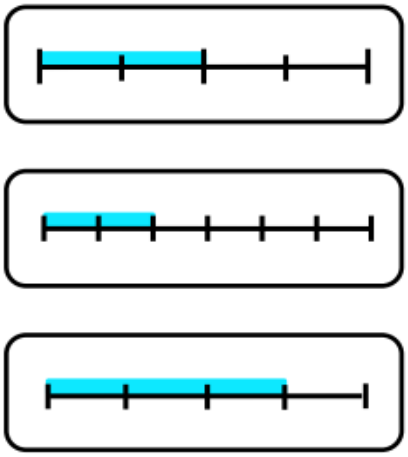


c) $\frac{1}{5}$

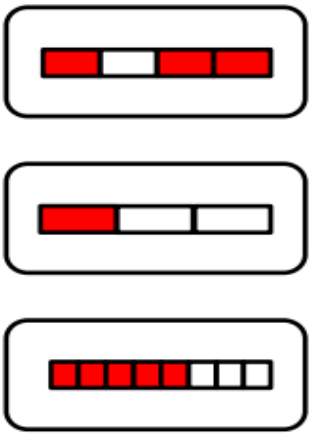
3



4 Write the fractions these number lines represent

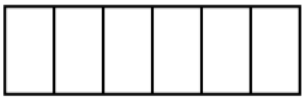


5 Write the fractions these diagrams represent



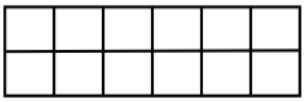
6 a) Shade $\frac{1}{3}$ of this shape

b) Shade $\frac{2}{6}$ of this shape



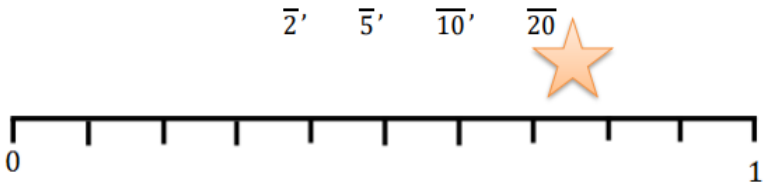
c) Shade $\frac{2}{3}$ of this shape

d) Shade $\frac{1}{3}$ of this shape

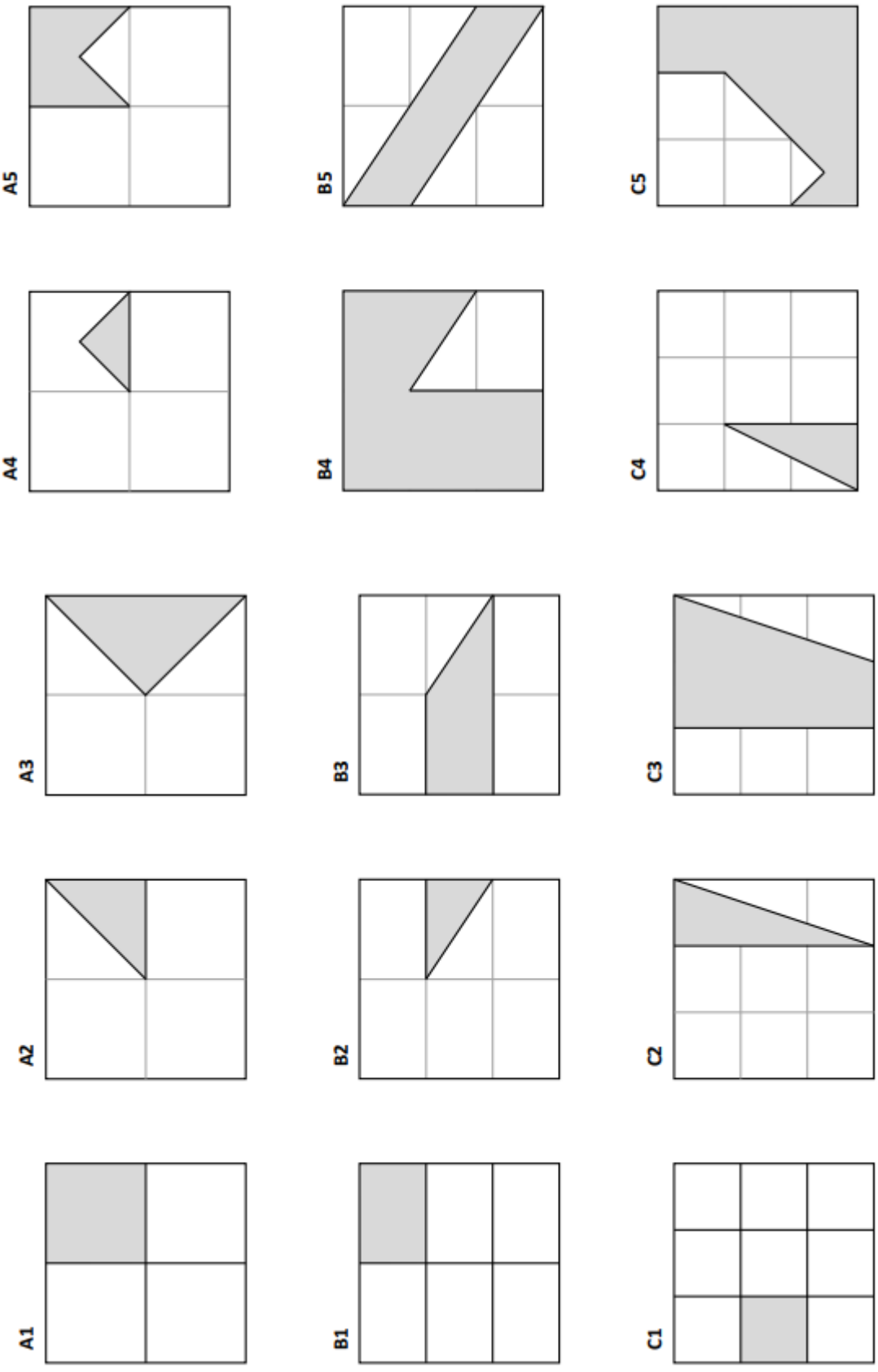


7 Place the following fractions on the number line

$\frac{1}{2}$, $\frac{2}{5}$, $\frac{1}{10}$, $\frac{1}{20}$



Fractional Squares What fraction of each square is shaded?



Week 1:

- **LI: I can recognise and name equivalent fractions**

Demonstration Video: https://corbettmaths.com/2013/02/15/equivalent-fractions/
Tasks:

Section 1

Question 1: Find the missing numbers

(a) $\frac{2}{3} = \frac{}{6}$ (b) $\frac{1}{5} = \frac{}{20}$ (c) $\frac{3}{4} = \frac{}{12}$ (d) $\frac{5}{7} = \frac{10}{}$

(e) $\frac{}{5} = \frac{15}{25}$ (f) $\frac{4}{} = \frac{12}{21}$ (g) $\frac{3}{10} = \frac{}{50}$ (h) $\frac{7}{8} = \frac{14}{}$

(i) $\frac{3}{4} = \frac{30}{}$ (j) $\frac{}{8} = \frac{55}{88}$ (k) $\frac{2}{9} = \frac{10}{}$ (l) $\frac{2}{3} = \frac{}{18}$

(m) $\frac{1}{20} = \frac{5}{}$ (n) $\frac{5}{6} = \frac{}{18}$ (o) $\frac{3}{8} = \frac{9}{}$ (p) $\frac{7}{12} = \frac{}{36}$

Question 2: Find the missing numbers

(a) $\frac{6}{7} = \frac{42}{}$ (b) $\frac{9}{20} = \frac{63}{}$ (c) $\frac{5}{12} = \frac{35}{}$ (d) $\frac{7}{8} = \frac{}{64}$

(e) $\frac{4}{} = \frac{32}{72}$ (f) $\frac{3}{4} = \frac{}{52}$ (g) $\frac{7}{25} = \frac{140}{}$ (h) $\frac{}{15} = \frac{42}{105}$

(i) $\frac{11}{16} = \frac{88}{}$ (j) $\frac{2}{9} = \frac{}{108}$ (k) $\frac{13}{25} = \frac{}{375}$ (l) $\frac{9}{} = \frac{81}{144}$

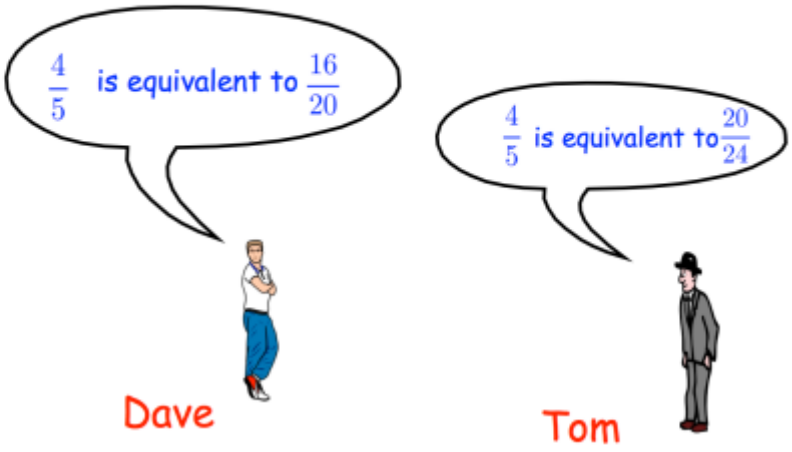
Section 2

Question 1: Write down 3 different fractions that are equivalent to $\frac{1}{2}$

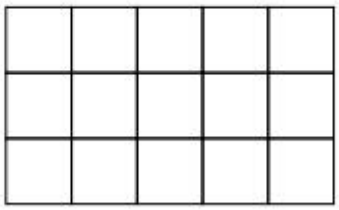
Question 2: Write down 3 different fractions that are equivalent to $\frac{3}{5}$

Question 3: Write down 3 different fractions that are equivalent to $\frac{7}{12}$

Question 4: Dave and Tom are discussing fractions.
Is either man correct?



Question 5: Use the grid to explain why $\frac{3}{4}$ cannot be written as a fraction with a denominator of 15.



Question 6: Macey has completed her maths homework.
Can you explain what she has done wrong?

(a) $\frac{3}{4} = \frac{\boxed{4}}{16}$

(b) $\frac{\boxed{3}}{5} = \frac{6}{15}$

(c) $\frac{7}{8} = \frac{35}{\boxed{5}}$

(d) $\frac{2}{\boxed{8}} = \frac{16}{40}$

Week 1:

- **LI: I can convert fractions to decimals**

Demonstration Videos: https://corbettmaths.com/2013/02/15/fractions-to-decimals/
https://corbettmaths.com/2013/02/15/fractions-to-decimals-calculator/

Tasks:

Section 1

Question 1: Convert the following fractions to decimals.

(a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{3}{4}$ (d) $\frac{1}{5}$ (e) $\frac{3}{5}$ (f) $\frac{4}{5}$

(g) $\frac{1}{10}$ (h) $\frac{3}{10}$ (i) $\frac{7}{10}$ (j) $\frac{9}{10}$ (k) $\frac{67}{100}$ (l) $\frac{99}{100}$

Question 2: Convert the following fractions to decimals.

(a) $\frac{1}{8}$ (b) $\frac{7}{20}$ (c) $\frac{5}{8}$ (d) $\frac{3}{20}$ (e) $\frac{3}{25}$ (f) $\frac{7}{8}$

(g) $\frac{19}{20}$ (h) $\frac{43}{50}$ (i) $\frac{1}{3}$ (j) $\frac{9}{200}$ (k) $\frac{9}{40}$ (l) $\frac{13}{20}$

(m) $\frac{2}{3}$ (n) $\frac{123}{200}$ (o) $\frac{21}{40}$ (p) $\frac{401}{500}$ (q) $\frac{161}{200}$ (r) $\frac{3}{8}$

(s) $\frac{1}{9}$ (t) $\frac{19}{50}$ (u) $\frac{51}{80}$ (v) $\frac{11}{80}$ (w) $\frac{5}{9}$

Question 3: Convert the following fractions to decimals.

(a) $\frac{3}{2}$ (b) $\frac{5}{4}$ (c) $\frac{11}{2}$ (d) $\frac{9}{5}$ (e) $\frac{53}{20}$ (f) $\frac{177}{100}$

Section 2

Question 1: Match up any fraction and decimal that are equivalent.
Not all the fractions and decimals will match up.

$\frac{1}{2}$	0.4
$\frac{3}{4}$	0.5
$\frac{2}{5}$	0.25
$\frac{7}{10}$	0.34
$\frac{1}{4}$	0.7

Question 2: Which is larger, 0.65 or $\frac{3}{5}$?

Explain your answer.

Question 4: In 2015, $\frac{13}{20}$ of adults in the UK owned a smart phone.

Write $\frac{13}{20}$ as a decimal.

Question 5: Leon has completed his homework.
Can you spot any mistakes?

Write $\frac{4}{5}$ as a decimal.

$$4\overline{)5.^{1}0^{2}0} \quad 1.25$$

Answer: 1.25

Write $\frac{3}{20}$ as a decimal.

$$20\overline{)3.^{3}0^{1}0^{10}0} \quad 0.105$$

Answer: 0.105

Expressing fractions as decimals

a) $\frac{1}{2}$

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

c) $\frac{1}{8}$

d) $\frac{1}{5}$

e) $\frac{3}{5}$

f) $\frac{3}{10}$

g) $\frac{3}{20}$

h) $\frac{17}{20}$

i) $\frac{17}{25}$

j) $\frac{17}{40}$

Challenge

DIGIT Puzzle

How many ways can you complete this calculation?

$$\frac{\square\square}{\square\square} = 0.\square\square$$

★ Use any digits

★★ Use digits only once

How many different denominators can you use?

Week 2:

- **LI: I can convert terminating decimals to fractions in their simplest form**

Demonstration Videos: https://corbettmaths.com/2013/02/15/decimals-to-fractions/

Tasks:

Section 1

Question 1: Convert the following decimals to fractions, in their simplest forms

(a) 0.5	(b) 0.3	(c) 0.7	(d) 0.1
(e) 0.8	(f) 0.2	(g) 0.9	(h) 0.6
(i) 0.13	(j) 0.22	(k) 0.31	(l) 0.12
(m) 0.42	(n) 0.89	(o) 0.15	(p) 0.84
(q) 0.25	(r) 0.02	(s) 0.45	(t) 0.07
(u) 0.92	(v) 0.95	(w) 0.16	(x) 0.83

Question 2: Write the following decimals as fractions, in their simplest forms

(a) 0.123	(b) 0.402	(c) 0.676	(d) 0.888
(e) 0.195	(f) 0.625	(g) 0.225	(h) 0.1234
(i) 0.5005	(j) 0.2244	(k) 0.9702	(l) 0.7007

Question 3: Convert the following decimals to fractions, in their simplest forms

(a) 1.3	(b) 1.9	(c) 1.4	(d) 1.5
(e) 2.5	(f) 3.9	(g) 8.5	(h) 1.12
(i) 1.75	(j) 1.72	(k) 2.75	(l) 3.55

Challenge

GCSE — AQA Foundation: June 2018 Paper 3, Q1

1 Circle the value of the digit 9 in 4.59 **[1 mark]**

$\frac{1}{9}$ $\frac{9}{10}$ $\frac{59}{100}$ $\frac{9}{100}$

2 Circle the value of the digit 3 in 6.493 **[1 mark]**

$\frac{3}{10}$ $\frac{3}{100}$ $\frac{3}{1000}$ $\frac{3}{10000}$

3 Circle the value of the digit 4in 5.24 **[1 mark]**

$\frac{4}{100}$ $\frac{2}{50}$ $\frac{24}{100}$ $\frac{1}{25}$

Section 2

Question 1: Match up any decimal and fraction that are equivalent.
Not all the decimals and fractions will match up

$\frac{1}{3}$	0.6
$\frac{3}{5}$	1.3
$\frac{1}{2}$	0.5
$\frac{3}{10}$	0.625
$\frac{5}{8}$	0.3

Question 2: Danny has tried to complete his homework.
Can you spot any mistakes?

Q1 Write 0.6 as a fraction.
Give your answer in its simplest form.

$$\frac{6}{10}$$

Q2 Write 0.08 as a fraction.
Give your answer in its simplest form.

$$\frac{2}{50}$$

Q3 Write 0.902 as a fraction.
Give your answer in its simplest form.

$$\frac{46}{500} = \frac{23}{250}$$

Challenge

Convert these mixed decimals to fractions.

- Leave your fraction answers as a decimal fraction with the denominator as a power of 10, you do not need to simplify your fraction.
- Give your answer as both a mixed fraction and an improper fraction.

			Mixed	Improper				Mixed	Improper
1)	2.6	=	$2\ \frac{6}{10}$	$\frac{26}{10}$	6)	0.34	=		
2)	1.3	=			7)	1.58	=		
3)	3.1	=			8)	4.81	=		
4)	0.9	=			9)	1.43	=		
5)	4.8	=			10)	0.85	=		

Week 2:

- **LI: I can convert between mixed numbers and improper fractions**

Demonstration Videos:

https://corbettmaths.com/2013/02/15/mixed-numbers-to-improper-fractions/

https://corbettmaths.com/2013/02/15/improper-fractions-to-mixed-numbers/

Tasks:

Section 1

Question 1: Change these improper fractions into mixed numbers

(a) $\frac{7}{3}$	(b) $\frac{7}{5}$	(c) $\frac{5}{2}$	(d) $\frac{8}{7}$	(e) $\frac{5}{3}$
(f) $\frac{10}{3}$	(g) $\frac{23}{2}$	(h) $\frac{11}{4}$	(i) $\frac{11}{8}$	(j) $\frac{9}{4}$
(k) $\frac{13}{10}$	(l) $\frac{13}{6}$	(m) $\frac{16}{7}$	(n) $\frac{51}{10}$	(o) $\frac{34}{11}$
(p) $\frac{29}{12}$	(q) $\frac{60}{11}$	(r) $\frac{47}{15}$	(s) $\frac{101}{9}$	(t) $\frac{99}{20}$
(u) $\frac{12}{9}$	(v) $\frac{35}{10}$	(w) $\frac{18}{4}$	(x) $\frac{50}{6}$	(y) $\frac{40}{15}$

Question 2: Change these mixed numbers into improper fractions

(a) $2\frac{1}{5}$	(b) $3\frac{1}{2}$	(c) $1\frac{3}{4}$	(d) $3\frac{2}{3}$	(e) $1\frac{2}{5}$
(f) $2\frac{4}{7}$	(g) $1\frac{1}{3}$	(h) $2\frac{3}{10}$	(i) $4\frac{3}{4}$	(j) $1\frac{7}{12}$
(k) $3\frac{9}{10}$	(l) $2\frac{3}{50}$	(m) $3\frac{5}{8}$	(n) $8\frac{3}{8}$	(o) $1\frac{14}{32}$
(p) $2\frac{19}{24}$	(q) $12\frac{1}{9}$	(r) $5\frac{4}{15}$	(s) $4\frac{11}{12}$	(t) $13\frac{7}{16}$

Section 2

Question 1: Match up the improper fractions and mixed numbers.

$2\frac{1}{4}$	$2\frac{1}{3}$	$1\frac{3}{4}$	$3\frac{2}{3}$
$\frac{7}{4}$	$\frac{11}{3}$	$\frac{7}{3}$	$\frac{9}{4}$

Question 2: Arrange these improper fractions in order, starting with the smallest.

$$\frac{23}{4}, \frac{37}{7}, \frac{11}{2}$$

Question 3: Write down a mixed number between $3\frac{3}{11}$ and $3\frac{2}{5}$

Question 4: Gregory feeds his cat $\frac{2}{5}$ of a can of cat food each day.

Work out how many cans of cat food are eaten each fortnight.

Give your answer as a mixed number.

Question 5:

13	9	21	5	2

Using the cards, create an improper fraction that is:

(a) between 1 and 2
(b) between 2 and 3
(c) between 4 and 5
(d) between 5 and 10
(e) greater than 10

Week 2:

- **LI: I can compare and order numbers (including like and unlike fractions)**

Demonstration Video: https://corbettmaths.com/2013/02/17/ordering-fractions/

Tasks:

Section 1

Question 1: Arrange the following sets of fractions in order, from smallest to largest

(a) $\frac{6}{7}, \frac{1}{7}, \frac{2}{7}, \frac{5}{7}$ (b) $\frac{3}{10}, \frac{9}{10}, \frac{1}{10}, \frac{7}{10}$ (c) $\frac{2}{9}, \frac{8}{9}, \frac{5}{9}, \frac{1}{9}$

Question 2: Arrange the following sets of fractions in order, from smallest to largest

(a) $\frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{10}$ (b) $\frac{1}{8}, \frac{1}{4}, \frac{5}{8}, \frac{3}{4}$ (c) $\frac{5}{9}, \frac{2}{3}, \frac{7}{9}, \frac{1}{3}$

(d) $\frac{3}{5}, \frac{13}{20}, \frac{2}{5}, \frac{9}{20}$ (e) $\frac{5}{6}, \frac{7}{12}, \frac{5}{12}, \frac{11}{12}$ (f) $\frac{7}{20}, \frac{23}{60}, \frac{9}{20}, \frac{29}{60}$

Question 3: Arrange the following sets of fractions in order, from smallest to largest

(a) $\frac{2}{3}, \frac{11}{15}, \frac{7}{15}, \frac{3}{5}$ (b) $\frac{13}{20}, \frac{3}{4}, \frac{7}{10}, \frac{11}{20}$ (c) $\frac{1}{2}, \frac{2}{3}, \frac{7}{12}, \frac{5}{6}$

(d) $\frac{13}{16}, \frac{3}{4}, \frac{5}{8}, \frac{11}{16}$ (e) $\frac{3}{50}, \frac{7}{100}, \frac{1}{10}, \frac{9}{200}$ (f) $\frac{13}{20}, \frac{4}{5}, \frac{7}{10}, \frac{23}{40}$

Question 4: Arrange the following sets of fractions in order, from smallest to largest

(a) $\frac{3}{4}, \frac{2}{3}, \frac{5}{6}, \frac{1}{3}$ (b) $\frac{1}{4}, \frac{3}{8}, \frac{1}{6}, \frac{5}{12}$ (c) $\frac{9}{20}, \frac{5}{12}, \frac{3}{10}, \frac{17}{30}$

(d) $\frac{3}{25}, \frac{1}{10}, \frac{1}{8}, \frac{7}{50}$ (e) $\frac{27}{40}, \frac{3}{5}, \frac{5}{8}, \frac{6}{15}$ (f) $\frac{7}{20}, \frac{1}{3}, \frac{3}{8}, \frac{2}{5}$

Challenge

DIGIT Puzzle

How many ways can you complete this ordered list of fractions?

$\square/\square$, $\square/\square$, $\square/\square$

smallest ⟷ largest

★ Use any digits

★★ Use digits only once

What are the largest & smallest fractions you can use?

Section 2

Question 1: Write down a fraction between $\frac{2}{3}$ and $\frac{4}{5}$

Question 2: Write down a fraction between $\frac{5}{8}$ and $\frac{2}{3}$

16. Write > or < in between each pair of fractions.

a) $\frac{1}{2}$ $\frac{1}{3}$

b) $\frac{1}{11}$ $\frac{1}{9}$

c) $\frac{2}{3}$ $\frac{2}{5}$

d) $\frac{4}{5}$ $\frac{7}{8}$

e) $\frac{2}{3}$ $\frac{5}{6}$

f) $\frac{5}{8}$ $\frac{6}{10}$

g) $\frac{4}{9}$ $\frac{5}{11}$

Challenge

DIGIT Puzzle

How many ways can you complete these fractions?

$\square/\square > \square/\square \geqslant \square/\square\square$

★ Use any digits

★★ Use digits only once

What are the largest & smallest fractions you can use?

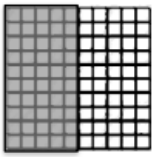
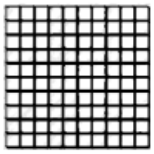
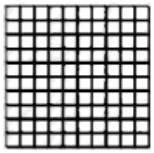
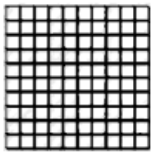
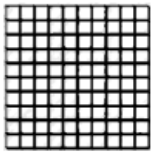
Stewards Academy

Week 3:

- **LI: I can convert simple fractions and decimals to percentages**

Demonstration Videos:
https://corbettmaths.com/2013/03/29/fractions-to-percentages/
https://corbettmaths.com/2012/08/19/decimals-to-percentages/
Tasks:

1

Pictorial (shading)	Fraction	Decimal	$\frac{\ }{100}$	Percentage
				
			$\frac{30}{100}$	
		0.1		
	$\frac{7}{10}$			
				55%

2 There are 20 apples on a tree.
3 of the apples are bad.
What percentage of the apples are bad?

3 James sat an English test.
He scored 39 out of 50.
What percentage did he get right?

4 Helen takes 25 shots at basketball training.
She misses 7 shots.
What percentage of the shots did Helen miss?

5 There are 40 passengers on a bus.
14 passengers are going to Newport.
What percentage of the passengers are going to Newport?

6 Convert the following decimals to percentages

(a) 0.25	(b) 0.75	(c) 0.13	(d) 0.88
(e) 0.49	(f) 0.92	(g) 0.61	(h) 0.07
(i) 0.03	(j) 0.44	(k) 0.5	(l) 0.9
(m) 0.72	(n) 0.8	(o) 0.01	(p) 0.36

7 Convert the following decimals to percentages

(a) 0.125	(b) 0.953	(c) 0.382	(d) 0.603
(e) 0.075	(f) 0.021	(g) 0.1425	(h) 0.9682
(i) 0.003	(j) 0.072	(k) 0.844	(l) 0.7003

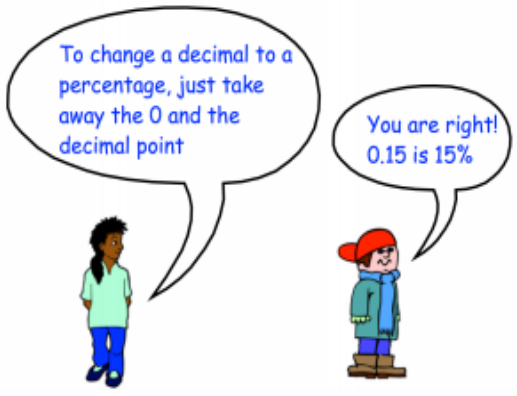
8 Arrange in order from smallest to largest

(a) 0.4, 20%, 0.5, 45%, 0.09

(b) 0.59, 85%, 20%, 0.8, 13%

(c) 29%, 0.3, 35%, 0.33, 25%

9 Jessica and Daniel are incorrect.
Explain why.



10 Convert the following fractions into percentages.

(a) $\frac{9}{50}$	(b) $\frac{3}{10}$	(c) $\frac{4}{5}$	(d) $\frac{12}{25}$
(e) $\frac{3}{4}$	(f) $\frac{9}{10}$	(g) $\frac{36}{50}$	(h) $\frac{13}{20}$
(i) $\frac{1}{5}$	(j) $\frac{3}{20}$	(k) $\frac{24}{25}$	(l) $\frac{7}{10}$
(m) $\frac{17}{20}$	(n) $\frac{13}{10}$	(o) $\frac{184}{200}$	(p) $\frac{39}{300}$

11 Convert the following fractions into percentages.

(a) $\frac{3}{8}$ (b) $\frac{32}{40}$ (c) $\frac{13}{200}$ (d) $\frac{7}{8}$

(e) $\frac{7}{40}$ (f) $\frac{5}{8}$ (g) $\frac{48}{60}$ (h) $\frac{60}{400}$

(i) $\frac{171}{200}$ (j) $\frac{52}{80}$ (k) $\frac{19}{40}$ (l) $\frac{57}{40}$

12 Convert the following fractions into percentages.

(a) $\frac{1}{8}$ (b) $\frac{17}{40}$ (c) $\frac{5}{16}$ (d) $\frac{53}{400}$

(e) $\frac{38}{125}$ (f) $\frac{15}{16}$ (g) $\frac{7}{32}$ (h) $\frac{10}{64}$

Challenges

GCSE AQA Foundation: June 2017 Paper 2, Q17

1 Circle the fraction equal to 0.3% **[1 mark]**

$\frac{3}{10}$ $\frac{3}{100}$ $\frac{3}{1000}$ $\frac{3}{10000}$

2 Circle the fraction equal to 0.5% **[1 mark]**

$\frac{1}{200}$ $\frac{5}{100}$ $\frac{0.5}{1000}$ $\frac{5}{200}$

3 Circle the fraction equal to 5.5% **[1 mark]**

$\frac{11}{2000}$ $\frac{11}{20}$ $\frac{55}{100}$ $\frac{11}{200}$

GCSE AQA Foundation: May 2018 Paper 1, Q19 COPY

1 Circle the percentage that is closest in value to $\frac{1}{3}$ **[1 mark]**

30% 33% 33.3% 33.4%

2 Circle the percentage that is closest in value to $\frac{2}{3}$ **[1 mark]**

60% 66% 66.6% 66.7%

GCSE Edexcel Foundation: June 2018 Paper 3, Q2

1 Write 0.4 as a percentage.

..... %

(Total for Question 1 is 1 mark)

2 Write 0.1 as a percentage.

..... %

(Total for Question 2 is 1 mark)

3 Write 0.7 as a percentage.

..... %

(Total for Question 3 is 1 mark)

Week 3:

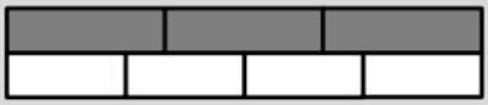
- **LI: I can express one quantity as a fraction of another**

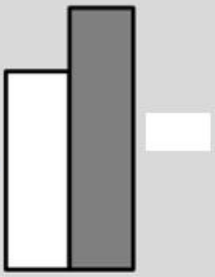
Demonstration Video:
https://corbettmaths.com/2012/08/21/expressing-one-quantity-as-a-fraction-of-another/
Tasks:

Concept Corner

One quantity can be expressed as a ____ of another.

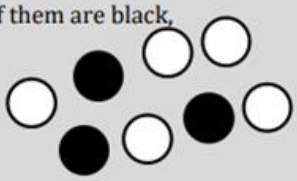
If I have a white bar which is ____ long and a grey bar which is 4 cm long, then the white bar is $\frac{3}{4}$ the length of the grey bar:



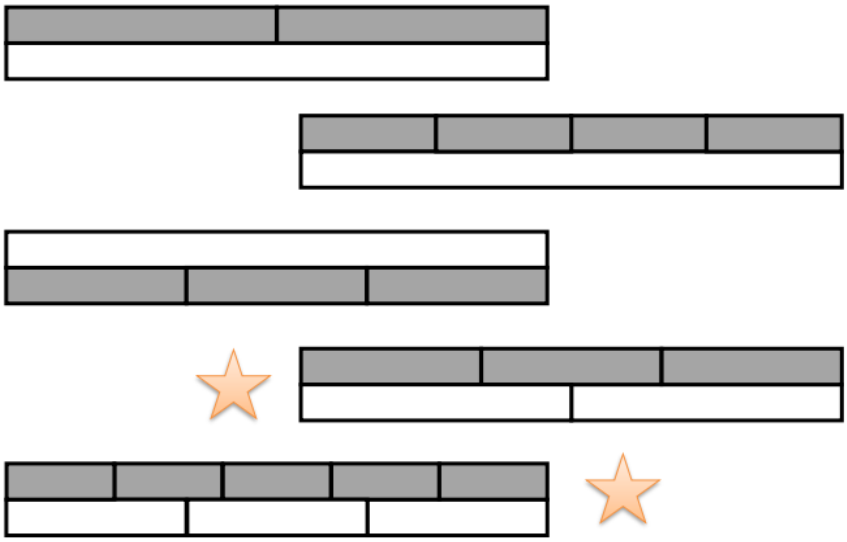


If Harriet has 8 counters and 3 of them are black,

____ of the counters are black.



1 What fraction of one white bar is one grey bar in each diagram below?



2

Question 1: Give each answer as a simplified fraction

(a) Write 5 days as a fraction of 20 days

(b) Write £6 as a fraction of £8

(c) Write 10p as a fraction of 30p

(d) Write 6kg as a fraction of 12kg

(e) Write 9cm as a fraction of 15cm

(f) Write 25 days as a fraction of 35 days

(g) Write 8p as a fraction of 40p

(h) Write 52p as a fraction of 90p

(i) Write 30ml as a fraction of 110ml

(j) Write 360kg as a fraction of 480kg

Question 3 Give each answer as a simplified fraction

(a) Write 2 days as a fraction of 1 week

(b) Write 40p as a fraction of £3

(c) Write 5 minutes as a fraction of 2 hours

(d) Write 2 months as a fraction of 1 year

(e) Write 500g as a fraction of 40kg

(f) Write 750ml as a fraction of 3 litres

(g) Write 8g as a fraction of 4kg

(h) Write 920mm as a fraction of 12m

(i) Write £1.85 as a fraction of £1.20

(j) Write 50 seconds as a fraction of 1 hour

4

Nigel has completed his homework.
Can you spot any mistakes?

In a bag there are 80 beads.
There are 35 yellow beads.
There are 17 red beads.
The rest of the beads are white.

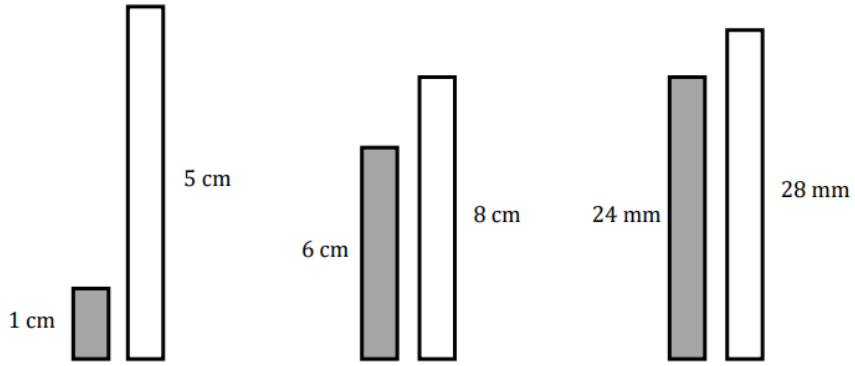
$35 + 17 = 52$

$80 - 52 = 38$

Work out what fraction of the beads are white.
Give your answer in its simplest form.

$\frac{38}{80} = \frac{19}{40}$

5 What fraction of the white bar is one grey bar in each diagram below? Write your answers in their simplest form.



Stewards Academy

- **LI: I can find a fraction of a set of objects or quantity**

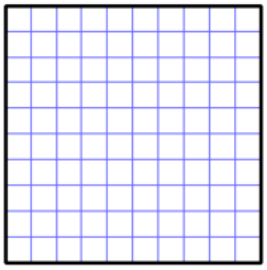
Demonstration Video: https://corbettmaths.com/2012/08/20/fractions-of-amounts/

Tasks:

1. a) Shade in $\frac{1}{4}$ of the rectangle.

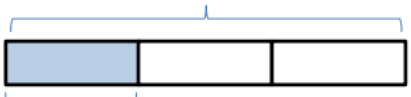
b) Calculate $\frac{1}{4}$ of 8.

2. a) Shade in $\frac{1}{5}$ of the 100 grid.



b) Calculate $\frac{1}{5}$ of 100.

3. Match the bar model to the calculation and fill in the blanks.



6

$\frac{1}{4}$ of 20 = ...

5

$\frac{1}{5}$ of 35 = ...

4

$\frac{1}{3}$ of 18 = ...

7

$\frac{1}{6}$ of 24 = ...

Fractions of Quantities

Example $\frac{1}{3}$ of 21 = 7 $\frac{2}{3}$ of 21 = 14

7	7	7

a) $\frac{1}{3}$ of 15 = 5 $\frac{2}{3}$ of 15 =

5	5	5

b) $\frac{1}{4}$ of 16 = $\frac{3}{4}$ of 16 =

c) $\frac{1}{5}$ of 25 = $\frac{2}{5}$ of 25 =

d) $\frac{1}{4}$ of 28 = $\frac{3}{4}$ of 28 =

4. Calculate

a) $\frac{1}{2}$ of 12 =

b) $\frac{1}{4}$ of 32 =

c) $\frac{1}{5}$ of 15 =

d) $\frac{1}{8}$ of 40 =

e) $\frac{1}{12}$ of 84 =

5. In a school exactly half of the students are boys.
There are 460 students in the school. How many boys are there in the school?

6. Tim gets £12 a week and saves $\frac{1}{3}$ of this.
   a) How much money does he save?

   b) How much money does he spend?

7. Hakeem has £11.85.
He gives $\frac{1}{3}$ of the money to Jesse.
Hakeem then gives $\frac{1}{2}$ of what is left to Kyle.
How much money does everyone have now?

Calculate:

8. a) $\frac{3}{4}$ of 24 =

b) $\frac{4}{5}$ of 20 =

c) $\frac{3}{7}$ of 14 =

d) $\frac{3}{8}$ of 64 =

e) $\frac{7}{8}$ of 56 =

f) $\frac{9}{4}$ of 28 =

g) $\frac{13}{6}$ of 30 =

h) $\frac{5}{2}$ of 14 =

i) $\frac{3}{5}$ of £21 =

j) $\frac{17}{5}$ of 4 =

Week 4:

- **LI: I can find the whole given a fraction**

Demonstration Video: https://corbettmaths.com/2013/02/17/fractions-find-original/
Tasks:

Section 1

Question 1: Find the original number for each question below.

(a) $\frac{1}{2}$ of a number is 7, what is the number? (b) $\frac{1}{3}$ of a number is 4, what is the number?

(c) $\frac{1}{4}$ of a number is 8, what is the number? (d) $\frac{1}{5}$ of a number is 9, what is the number?

(e) $\frac{1}{2}$ of a number is 12.5, what is the number? (f) $\frac{1}{3}$ of a number is 27, what is the number?

(g) $\frac{1}{10}$ of a number is 2.6, what is the number? (h) $\frac{1}{12}$ of a number is 8, what is the number?

Question 2: Find the original number for each question below.

(a) $\frac{2}{3}$ of a number is 12, what is the number? (b) $\frac{2}{5}$ of a number is 10, what is the number?

(c) $\frac{2}{7}$ of a number is 6, what is the number? (d) $\frac{3}{10}$ of a number is 60, what is the number?

(e) $\frac{4}{9}$ of a number is 12, what is the number? (f) $\frac{2}{3}$ of a number is 3, what is the number?

(g) $\frac{3}{4}$ of a number is 27, what is the number? (h) $\frac{5}{12}$ of a number is 35, what is the number?

Question 3: Find the original number for each question below.

(a) A number is increased by $\frac{1}{3}$ to 16. What was the number?

(b) A number is increased by $\frac{1}{5}$ to 36. What was the number?

(c) A number is decreased by $\frac{1}{4}$ to 21. What was the number?

(d) A number is decreased by $\frac{1}{10}$ to 162. What was the number?

(e) A number is increased by $\frac{2}{5}$ to 49. What was the number?

Section 2

Question 1: Rebecca is $\frac{1}{3}$ of Barry's age.

Barry is $\frac{1}{6}$ of Neville's age.

If Rebecca is 4 years old, how old is Neville?

Question 2: A new snack bar contains 7.5g of sugar.

$\frac{3}{10}$ of the snack bar is sugar.

Work out the mass of the snack bar.

Question 3: In a class, $\frac{2}{7}$ of the students have blonde hair.

There are 20 students without blonde hair.

How many students are in the class?

Question 4: The height of a tree increased by $\frac{4}{15}$ during 2016.

The tree is 2.47m by the end of 2016.

Work out the height of the tree at the beginning of 2016.

Question 5: Laura invested some money.

In the first year, the amount of money increased by $\frac{1}{20}$

In the second year, the amount of money increased by $\frac{1}{5}$

In the third year, the amount of money decreased by $\frac{1}{4}$

Was the investment a success?

Challenge

GCSE AQA Foundation: June 2017 Paper 2, Q10

1 The average wage at an office is £45

Mrs Wilson's wage is $\frac{7}{5}$ of the average. **[2 marks]**

How much does Mrs Wilson get paid?

Answer _____

2 The average wage at an office is £48

Mr Giles' wage is $\frac{13}{12}$ of the average. **[2 marks]**

How much does Mrs Wilson get paid?

Answer _____

Week 4:

- **LI: I can multiply and divide a whole number or fraction by a whole number or fraction**

Demonstration Video: https://corbettmaths.com/2012/08/21/multiplying-fractions-2/
Tasks:

Section 1

Question 1: Work out each of the following multiplications.
Give each answer in its simplest form.

(a) $\frac{1}{2} \times \frac{1}{5}$ (b) $\frac{1}{2} \times \frac{3}{4}$ (c) $\frac{1}{4} \times \frac{3}{5}$ (d) $\frac{1}{3} \times \frac{1}{3}$

(e) $\frac{5}{6} \times \frac{1}{2}$ (f) $\frac{3}{4} \times \frac{1}{4}$ (g) $\frac{2}{3} \times \frac{1}{7}$ (h) $\frac{5}{8} \times \frac{1}{3}$

(i) $\frac{2}{3} \times \frac{1}{2}$ (j) $\frac{1}{3} \times \frac{3}{4}$ (k) $\frac{3}{10} \times \frac{1}{2}$ (l) $\frac{2}{5} \times \frac{1}{4}$

(m) $\frac{2}{7} \times \frac{3}{4}$ (n) $\frac{5}{7} \times \frac{1}{10}$ (o) $\frac{7}{12} \times \frac{2}{3}$ (p) $\frac{6}{7} \times \frac{2}{3}$

(q) $\frac{6}{7} \times \frac{2}{9}$ (r) $\frac{3}{10} \times \frac{5}{6}$ (s) $\frac{6}{15} \times \frac{3}{4}$ (t) $\frac{3}{5} \times \frac{11}{15}$

(u) $\frac{9}{20} \times \frac{10}{11}$ (v) $\frac{21}{30} \times \frac{2}{3}$ (w) $\frac{12}{25} \times \frac{5}{8}$ (x) $\frac{8}{9} \times \frac{3}{16}$

Question 2: Work out the following multiplications
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{1}{5} \times 3$ (b) $7 \times \frac{1}{8}$ (c) $\frac{1}{10} \times 4$ (d) $30 \times \frac{1}{2}$

(e) $8 \times \frac{3}{4}$ (f) $\frac{2}{3} \times 12$ (g) $5 \times \frac{1}{3}$ (h) $8 \times \frac{2}{5}$

(i) $\frac{4}{5} \times 20$ (j) $\frac{2}{7} \times 8$ (k) $8 \times \frac{5}{4}$ (l) $\frac{1}{5} \times 360$

Question 3: Work out the following multiplications
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $1\frac{2}{3} \times \frac{1}{4}$ (b) $\frac{2}{5} \times 1\frac{1}{4}$ (c) $\frac{3}{4} \times 1\frac{1}{2}$ (d) $2\frac{1}{2} \times \frac{7}{10}$

(e) $\frac{1}{4} \times 3\frac{1}{3}$ (f) $1\frac{2}{3} \times 1\frac{1}{4}$ (g) $4\frac{3}{5} \times 1\frac{2}{3}$ (h) $1\frac{2}{11} \times \frac{8}{9}$

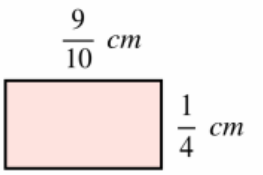
(i) $2\frac{5}{6} \times 2\frac{1}{5}$ (j) $1\frac{1}{9} \times 3\frac{3}{10}$ (k) $3\frac{1}{8} \times 2\frac{1}{2}$ (l) $2\frac{6}{7} \times 3\frac{1}{5}$

Section 2

Question 1: Work out $\frac{4}{5} \times 1\frac{1}{2} \times \frac{7}{8}$

Question 2: Work out the missing number $\square \div \frac{7}{15} = \frac{2}{3}$

Question 3: Find the area of this rectangle.
Include suitable units.



Question 4: Alexis has a pet dog, Maxi.

Each day, Maxi eats $\frac{2}{3}$ of a can of dog food.

Alexis is buying dog food for one week.

How many cans of dog food should Alexis buy?

Question 5: Kelly spends $\frac{1}{4}$ of her savings on driving lessons.

Kelly then spends $\frac{2}{3}$ of her remaining savings on a new car.

What fraction of her savings has Kelly spent?

Question 6: Work out $\frac{9}{10} + \left(\frac{5}{7}\right)^2$

Question 7: A wall measures $3\frac{3}{4}\,m$ by $4\frac{1}{3}\,m$

Each can of paint cover 2.5m² and costs £5.50

Work out the cost of painting the wall.

Question 8: Callum has completed his maths homework.
Can you spot any mistakes?

Work out

$\frac{1}{3} \times \frac{1}{6}$

$\frac{2}{18} = \frac{1}{9}$

Work out

$1\frac{3}{10} \times 2\frac{1}{2}$

$\frac{13}{10} \times \frac{5}{2} = \frac{75}{20}$

$60\frac{15}{20}$

$60\frac{3}{4}$

Stewards Academy

Week 4:

- **LI: I can multiply and divide a whole number or fraction by a whole number or fraction**

Demonstration Video: https://corbettmaths.com/2012/08/21/division-with-fractions/

Tasks:

Section 1

Question 1: Work out the following divisions.
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{1}{5} \div \frac{2}{3}$ (b) $\frac{3}{4} \div \frac{4}{5}$ (c) $\frac{1}{2} \div \frac{7}{8}$ (d) $\frac{2}{3} \div \frac{5}{6}$

(e) $\frac{1}{10} \div \frac{4}{9}$ (f) $\frac{6}{11} \div \frac{5}{6}$ (g) $\frac{2}{5} \div \frac{13}{15}$ (h) $\frac{3}{8} \div \frac{7}{9}$

(i) $\frac{3}{5} \div \frac{1}{2}$ (j) $\frac{7}{9} \div \frac{2}{3}$ (k) $\frac{8}{15} \div \frac{7}{10}$ (l) $\frac{9}{10} \div \frac{1}{3}$

(m) $\frac{5}{6} \div \frac{3}{4}$ (n) $\frac{13}{20} \div \frac{8}{11}$ (o) $\frac{4}{17} \div \frac{3}{16}$ (p) $\frac{5}{7} \div \frac{10}{19}$

Question 2: Work out the following divisions
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{3}{4} \div 2$ (b) $\frac{4}{7} \div 8$ (c) $\frac{11}{20} \div 3$ (d) $\frac{9}{40} \div 5$

(e) $4 \div \frac{2}{3}$ (f) $2 \div \frac{3}{4}$ (g) $12 \div \frac{2}{3}$ (h) $5 \div \frac{2}{9}$

Question 3: Work out the following divisions.
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{2}{3} \div 1\frac{4}{5}$ (b) $1\frac{1}{2} \div 1\frac{9}{10}$ (c) $2\frac{3}{7} \div \frac{1}{2}$ (d) $2\frac{1}{3} \div 5\frac{1}{2}$

(e) $3 \div 2\frac{1}{8}$ (f) $4\frac{1}{3} \div 2\frac{9}{10}$ (g) $6\frac{5}{6} \div 2$ (h) $1\frac{5}{12} \div 2\frac{2}{11}$

Question 4: John has 12 cans of dog food.
He has two dogs and he gives each dog $\frac{2}{3}$ of a can of dog food each day.

Does he have enough dog food to last one week?

Question 5: Alisha has $\frac{7}{8}$ litres of lemonade.

She is pouring glasses that each contain $\frac{1}{5}$ litres.

How many full glasses can she pour?

Section 2

Question 1: Work out the missing number $\frac{9}{11} \times \square = \frac{3}{4}$

Question 2: Work out

(a) $\frac{4}{5} \div \frac{3}{10} \div \frac{1}{8}$

(b) $\frac{7}{9} + \frac{1}{2} \div \frac{3}{5}$

Question 3: James shares $\frac{5}{8}$ of a cake between 6 people.

What fraction of the cake do they each receive?

Question 4: John has 12 cans of dog food.
He has two dogs and he gives each dog $\frac{2}{3}$ of a can of dog food each day.

Does he have enough dog food to last one week?

Question 5: Alisha has $\frac{7}{8}$ litres of lemonade.

She is pouring glasses that each contain $\frac{1}{5}$ litres.

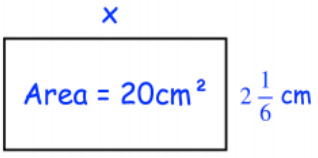
How many full glasses can she pour?

Question 6: Helen is cutting lengths of string from a roll that is $9\frac{1}{3}$ metres long.

Each length of string is $\frac{1}{9}$ metres long.

How many lengths of string can Helen cut from the roll?

Question 7: Shown is a rectangle.
Find the value of x



Question 8: Lee has completed his homework.
Can you spot any mistakes?

Work out

$\frac{2}{3} \div \frac{8}{11}$

Give your answer as a fraction in its simplest form.

$\frac{2}{3} \times \frac{8}{11}$

$= \frac{16}{33}$

Work out

$1\frac{4}{7} \div 1\frac{1}{4}$

Give your answer as a mixed number.

$\frac{11}{7} \div \frac{5}{4}$

$= \frac{11}{7} \times \frac{4}{5} = \frac{44}{35}$

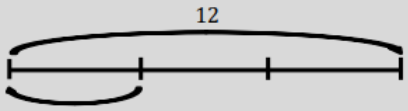
Week 5:

- **LI: I can understand and use reciprocals**

Demonstration Videos: https://corbettmaths.com/2012/08/21/reciprocals-2/
Tasks:

Concept Corner

Fact Families



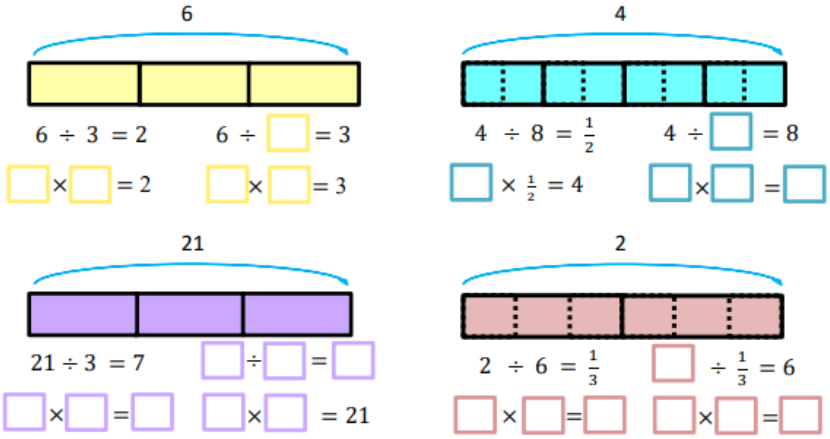
Dividing a number by 3 is equivalent to multiplying by $\frac{1}{3}$.

This leads to a fact family of four equivalent calculations:

$12 \div 3 = 4$ $\quad$ $4 \times 3 = 12$

$12 \times \frac{1}{3} = 4$ $\quad$ $4 \div \frac{1}{3} = 12$

1. Complete these fact families. Use the concept corner above to help you.



2 Alexi has 36 marbles. He gives $\frac{1}{9}$ of the marbles away to Sahar.
How many marbles does Sahar get?
Circle the correct calculation below and evaluate the answer.

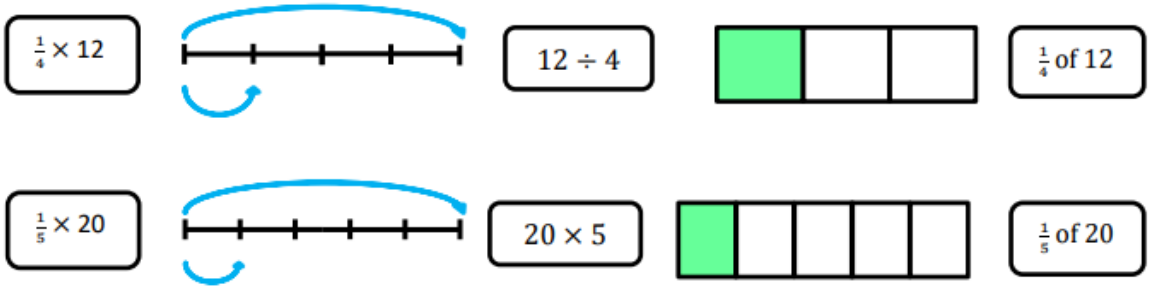
36×9 $\quad$ $36 \div 9$ $\quad$ $9 \div 36$

Sahar gets ..... marbles.

3 Match up the equivalent operations:

$\times \frac{1}{2}$	$\times 2$
$\div \frac{1}{2}$	$\times 5$
$\div \frac{1}{5}$	$\div 5$
$\times \frac{1}{5}$	$\div 2$
$\frac{1}{2}$ of	

4 Circle the odd one out in each set of representations:



5 Ian has made $\frac{3}{4}$ of a litre of coffee. He shares the coffee equally between himself and Helen.
How much coffee do they each get?
Circle the correct calculation below and evaluate the answer.

$\frac{3}{4} \times 2$ $\frac{3}{4} \div 2$ $2 \div \frac{3}{4}$

Ian and Helen each get ..... litres of coffee.

Question 6 Find the reciprocal of each of the following

(a) 2 (b) $\frac{1}{4}$ (c) $\frac{2}{3}$ (d) $\frac{3}{10}$ (e) $\frac{5}{2}$ (f) $\frac{1}{3}$

(g) 5 (h) $\frac{4}{5}$ (i) $\frac{2}{9}$ (j) $\frac{20}{19}$ (k) $\frac{1}{12}$ (l) $\frac{13}{8}$

(m) $\frac{4}{3}$ (n) 1

Question 7 Find the reciprocal of each of the following

(a) $1\frac{1}{2}$ (b) $1\frac{7}{10}$ (c) $2\frac{1}{3}$ (d) $4\frac{2}{3}$ (e) $1\frac{4}{9}$ (f) $6\frac{5}{6}$

Question 8 Find the reciprocal of each of the following

(a) 0.5 (b) 0.8 (c) 2.5 (d) 0.02 (e) 1.9 (f) 1.375

Week 5:

- **LI: I can multiply and divide mixed numbers, whole numbers and fractions**

Demonstration Videos (same as previous lessons):
https://corbettmaths.com/2012/08/21/multiplying-fractions-2/
https://corbettmaths.com/2012/08/21/division-with-fractions/
Tasks:

★	★★	★★★
A1.↻ $\frac{6}{10} \times \frac{1}{6}$	B1.↻ $2\frac{4}{6} \div 2\frac{6}{9}$	C1.↻ $1\frac{7}{8} \div 2\frac{2}{9} \div 1\frac{2}{4}$
A2.↻ $\frac{6}{10} \div \frac{2}{7}$	B2.↻ $1\frac{2}{4} \times 1\frac{4}{9}$	C2.↻ $2\frac{1}{4} \times 2\frac{2}{8} \div 2\frac{3}{4}$
A3.↻ $\frac{6}{7} \div \frac{2}{4}$	B3.↻ $1\frac{2}{6} \times 2\frac{1}{4}$	C3.↻ $1\frac{2}{6} \div 2\frac{3}{10} \times 2\frac{8}{12}$
A4.↻ $\frac{5}{6} \div \frac{3}{8}$	B4.↻ $1\frac{4}{7} \div 2\frac{1}{7}$	C4.↻ $1\frac{8}{11} \times 2\frac{4}{8} \div 1\frac{8}{13}$
A5.↻ $\frac{5}{9} \div \frac{4}{8}$	B5.↻ $1\frac{5}{10} \times 2\frac{2}{5}$	C5.↻ $2\frac{5}{8} \times 2\frac{2}{4} \times 1\frac{3}{9}$
A6.↻ $\frac{4}{5} \times \frac{1}{3}$	B6.↻ $1\frac{4}{5} \div 1\frac{1}{5}$	C6.↻ $1\frac{4}{5} \times 3\frac{1}{8} \div 1\frac{8}{12}$
A7.↻ $\frac{5}{6} \times \frac{4}{6}$	B7.↻ $1\frac{6}{9} \times 2\frac{3}{8}$	C7.↻ $2\frac{4}{8} \div 3\frac{4}{11} \div 1\frac{1}{7}$

Challenges

DIGIT Puzzle

How many ways can you complete this calculation?

$$\frac{\square}{\square} \times \frac{\square}{\square} = \frac{\square\square}{\square\square}$$

★ Use any digits
★★ Use digits only once

Simplify the result if you can!

DIGIT Puzzle

How many ways can you complete this calculation?

$$\frac{\square}{\square} \div \frac{\square}{\square} = \frac{\square\square}{\square\square}$$

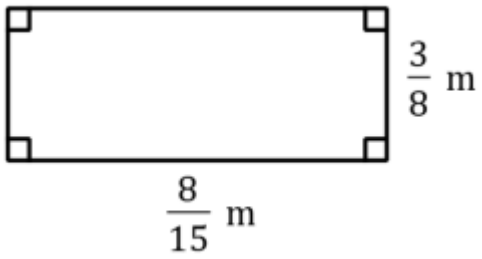
★ Use any digits
★★ Use digits only once

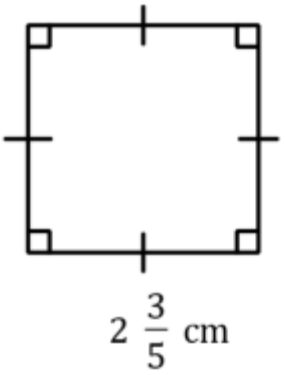
Simplify the result if you can!

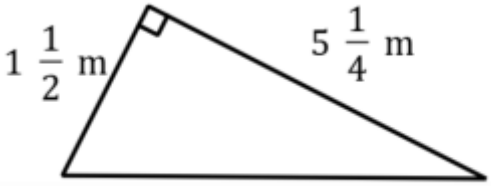
Circle the larger calculation in each pair:

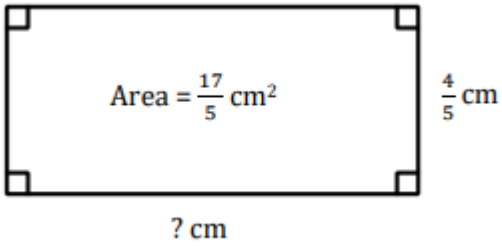
$\frac{4}{3} \times 2.3$	$\frac{4}{3} \times 1.3$
$1.2 \times \frac{4}{3}$	$\frac{3}{4} \times 1.2$
$2 \div \frac{1}{4}$	$2 \div 0.2$
$2 \div \frac{3}{5}$	$4 \div 0.1$

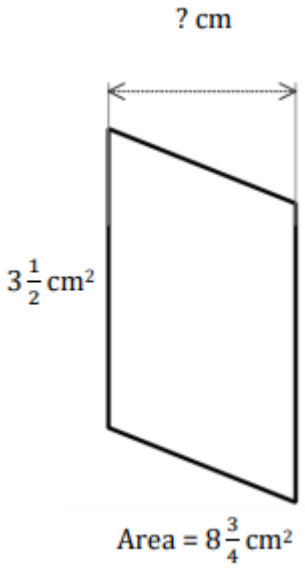
Find the area or side lengths for these shapes:











Attainment Band :	Unit 4 – Fractions	
	Knowledge and Understanding	**Skills**
Yellow Plus	Deduces the best score, using their understanding of fractions 15* Compares fractions, decimals and percentages to determine which one is different 16	Divides fractions, using cancelling to simplify 12a Multiplies mixed numbers 12b Solves written problems calculating with fractions 15*
Yellow	Compares fractions, decimals and percentages to deduce which is the largest 15 Knows the method to divide fractions 11b*/12a*	Recognises to find a unit fraction of an amount from a worded question 10a Finds a fraction of an amount from a written problem 10b Multiplies and divides fractions 11a/b Divides a whole number by a fraction 11c
Blue	Recognises where fractions and decimals are positioned on a number line 9	Converts fractions to decimals 7 Converts decimals to fractions 8 Converts a fraction to a percentage 13 Orders FDP using conversions 14
Green	Identifies fractions which are represented using equivalent fractions 3/6	Converts between improper fractions and mixed numbers 4/5a,b
White	Identifies fractions represented using diagrams as improper fractions and mixed numbers 4*	Recognises fractions represented using diagrams/bar models 1/3* Recognises fractions represented using number lines 2

* Asterisks mark next to a question number means a question has been broken down into subparts.