

Group B – Maths

Tuesday – Can I convert fractions into percentages and decimals when the denominator is a factor of 100?

1) Convert these fractions into percentages and decimals.

- | | | | |
|-------------------|-------------------|--------------------|--------------------|
| a) $\frac{3}{5}$ | b) $\frac{9}{10}$ | c) $\frac{17}{20}$ | d) $\frac{24}{25}$ |
| e) $\frac{4}{10}$ | f) $\frac{6}{20}$ | d) $\frac{17}{25}$ | e) $\frac{4}{5}$ |

2) a) Jake has $\frac{2}{10}$ of a pizza what percentage is this?

b) Elm Class have already collected 34 marbles for their Reward Time. If they have 50 marbles in total to collect, what fraction have they already collected? What percentage is this?

Challenge

- 1) What is 0.30 as a fraction?
- 2) What is 0.30 as a percentage?
- 3) What is 0.55 as a percentage and as a fraction out of 100?
- 4) What is 0.68 as a percentage and as a fraction?

Wednesday - Can I compare and order fractions, decimals and percentages??

Challenge 1

1 Copy each pair of fractions, decimals or percentages writing the correct symbol between them: < or > or =.

- | | | | | | | | |
|-----------------|----------------|------------------|---------------|-----------------|----------------|------------------|----------------|
| a $\frac{1}{2}$ | 0.3 | b 45% | $\frac{1}{4}$ | c 0.6 | $\frac{7}{10}$ | d $\frac{9}{10}$ | 91% |
| e 0.75 | $\frac{7}{10}$ | f $\frac{7}{10}$ | 0.65 | g 55% | 0.15 | h 0.1 | $\frac{1}{10}$ |
| i 40% | $\frac{2}{4}$ | j $\frac{6}{10}$ | 0.8 | k $\frac{3}{4}$ | 34% | l 20% | $\frac{4}{10}$ |

2 Choose two of your answers from Question 1 and explain how you know your answer is correct.

3 For each set, put the fractions, decimals and percentages in order, smallest to largest.

a	$\frac{1}{2}$	0.6	55%	$\frac{1}{4}$	0.2	23%	b	0.3	0.1	1%	64%	$\frac{4}{5}$	$\frac{1}{2}$
c	$\frac{7}{10}$	0.4	35%	$\frac{1}{5}$	50%	0.6	d	$\frac{4}{5}$	$\frac{3}{10}$	0.7	61%	99%	$\frac{9}{10}$

Challenge 2

1 Copy each set of fractions, decimals or percentages, writing the correct symbol between them: < or > or =.

- | | | | | | | | |
|------------------|---------------|-----------------|---------------|------------------|----------------|------------------|---------------|
| a 13% | $\frac{1}{3}$ | b 30% | 0.03 | c $\frac{7}{10}$ | 0.71 | d 0.25 | $\frac{2}{5}$ |
| e 52% | 0.5 | f $\frac{1}{5}$ | 50% | g 80% | $\frac{4}{5}$ | h 0.14 | 44% |
| i $\frac{8}{20}$ | 0.4 | j $\frac{5}{8}$ | 60% | k 0.06 | $\frac{1}{20}$ | l 5% | 0.05 |
| m 61% | 0.66 | n 0.16 | $\frac{1}{6}$ | o 66% | 0.6 | p $\frac{8}{20}$ | 40% |

Challenge

2 Work out each of these lengths in centimetres.

- | | | |
|--------------------|--------------------|------------------|
| a $\frac{8}{20}$ m | b 40% of a metre | c 0.52 m |
| d $\frac{3}{5}$ m | e $\frac{7}{10}$ m | f 16% of a metre |

Thursday – Can I convert fractions into percentages and decimals when the denominator is not a factor of 100?

1 Work out the decimal equivalent for each of these fractions.

- a $\frac{1}{4}$ b $\frac{2}{5}$ c $\frac{7}{10}$ d $\frac{6}{8}$ e $\frac{3}{10}$
 f $\frac{4}{5}$ g $\frac{9}{10}$ h $\frac{2}{8}$ i $\frac{4}{20}$ j $\frac{6}{16}$

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

2 Copy this table.

Fraction	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{9}$	$\frac{1}{10}$
Decimal									

- a Fill in the decimal equivalents that you know.
 b Estimate the decimal equivalents that you do not know.
 c Work out the answers to the decimal equivalents you do not know. Check if your estimates were close.

1 Estimate the decimal equivalent for each of these fractions.

- a $\frac{5}{8}$ b $\frac{5}{11}$ c $\frac{6}{6}$ d $\frac{7}{12}$ e $\frac{5}{9}$ f $\frac{1}{13}$
 g $\frac{6}{14}$ h $\frac{3}{7}$ i $\frac{11}{14}$ j $\frac{6}{15}$ k $\frac{9}{16}$ l $\frac{13}{15}$

Work out the decimal equivalents for the fractions in Question 1. Round each decimal to these degrees of accuracy:

- i 2 decimal places
 ii 3 decimal places

Compare your estimates and the decimal equivalents from Questions 1 and 2. Which was your closest estimate? Why do you think that was?

Optional Challenges

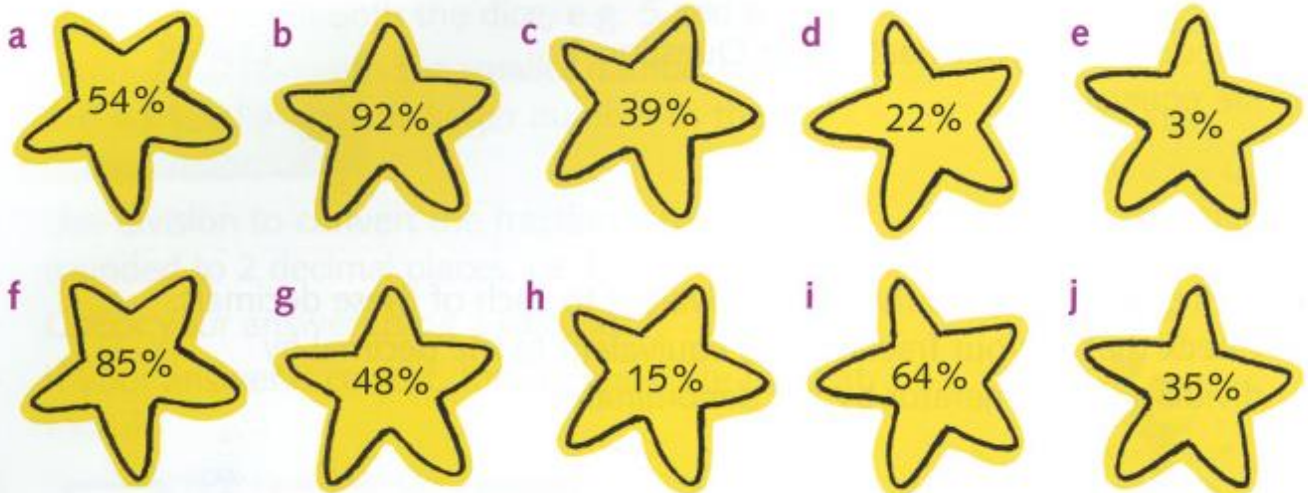
4 The Williams family have made a cake.

- Dad ate 19% of the cake.
- Mum ate $\frac{1}{8}$ of the cake.
- The twins ate 0.15 of the cake each.
- Their brother ate $\frac{1}{5}$.

- Who ate the most cake?
- How much of the cake is left?
- How much of the cake did Mum and Dad eat altogether?
- How much of the cake did the three children eat altogether?



1 Work out the fraction and decimal equivalents for these percentages. Make sure the fraction is expressed in its simplest form.



2 How many fractions can you find that have a decimal equivalent from 0.5 to 0.7? How will you start to investigate this? What do you already know that can help you?

Friday – Can I develop my Arithmetic and Reasoning skills?

Complete the Week 3 Test using the link below *before* your live session.

<https://myminimaths.co.uk/year-6-arithmetic-practice-papers/>

Answers- Tues-Thurs

TUESDAY

1

- a) $3/5 \times 20 = 60/100 = 0.6$ & 60%
- b) $9/10 \times 10 = 90/100 = 0.9$ & 90%
- c) $17/20 \times 5 = 85/100 = 0.85$ & 85%
- d) $24/25 \times 4 = 96/100 = 0.96$ & 96%
- e) $4/10 \times 10 = 40/100 = 0.4$ & 40%
- f) $6/20 \times 5 = 30/100 = 0.3$ & 30%
- g) $17/25 \times 4 = 68/100 = 0.68$ & 68%
- h) $4/5 \times 20 = 80/100 = 0.8$ & 80%

2

- a) 20%
- b) $34/50 = 68/100 = 68\%$

Challenge

- 1) $3/10$
- 2) 30%
- 3) $55/100$
- 4) $68\% = 68/100 \div 4 = 17/25$

WEDNESDAY

a) >	b) >	c) <	d) <
e) >	f) >	g) >	h) =
i) <	j) <	k) >	l) <

- a) 0.2 23% ¼ ½ 55% 0.6
- b) 1% 0.1 0.3 ½ 64% 4/5
- c) 1/5 35% 0.4 50% 0.6 7/10
- d) 3/10 61% 0.7 4/5 9/10 99%

a) >	b) >	c) <	d) <
e) >	f) <	g) =	h) <
i) =	j) >	k) >	l) =
m) <	n) <	o) >	p) =

Challenge

- a) 40 cm
- b) 40 cm
- c) 52 cm
- d) 60 cm
- e) 70 cm
- f) 16 cm

THURSDAY

a) ¼ = 0.25	b) 2/5 = 0.4	c) 7/10 = 0.7	d) 6/8 = 0.75	e) 3/10 = 0.3
f) 4/5 = 0.8	g) 9/10 = 0.9	h) 2/8 = 0.25	i) 4/20 = 0.2	j) 6/16 = 0.375

Fraction	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{9}$	$\frac{1}{10}$
Decimal	0.5	0.3̄3	0.25	0.2	0.16̄	0.1428	0.125	0.11̄	0.1

a) 0.625 / 0.63	b) 0.45	c) 1	d) 0.58333 / 0.58	e) 0.5555 / 0.556 / 0.56	f) 0.0769 / 0.077 / 0.08
g) 0.4285 / 0.429 / 0.43	h) 0.4285 / 0.429 / 0.43	i) 0.7857 / 0.786 / 0.79	j) 0.4	k) 0.5625 / 0.563 / 0.56	l) 0.866666 / 0.867 / 0.87

OPTIONAL CHALLENGES

Who ate the most cake? Brother

How much of the cake is left? $0.185 = 18.5\% = 37/200$

How much did Mum and Dad eat altogether? $0.315 = 31.5\% = 63/200$

How much of the cake did the children eat altogether? $0.5 = 50\% = 1/2$

a) 54% / 0.54 / 27/50	b) 92% / 0.92 / 23/25	c) 39% / 0.39 / 39/100	d) 22% / 0.22 / 11/50	e) 3% / 0.03 / 3/100
f) 85% / 0.85 / 17/20	g) 48% / 0.48 / 12/25	h) 15% / 0.15 / 3/20	i) 64% / 0.64 / 16/25	j) 35% / 0.35 / 7/20