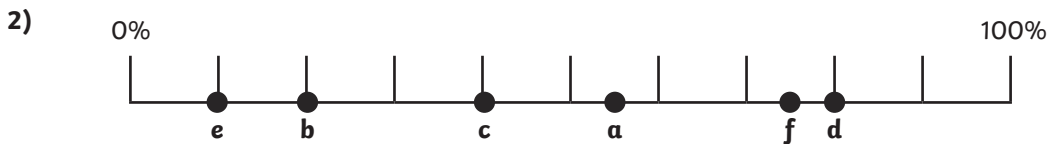




- 1) a) $A = \frac{1}{2}, 0.5, 50\%$
 $B = \frac{1}{4}, 0.25, 25\%$
 $C = \frac{1}{5}, 0.2, 20\%$

b)

Fraction	Decimal	Percentage
$\frac{1}{2}$	0.5	50%
$\frac{30}{100}$ or $\frac{3}{10}$	0.3	30%
$\frac{60}{100}$ or $\frac{6}{10}$ or $\frac{3}{5}$	0.6	60%
$\frac{1}{4}$	0.25	25%
$\frac{75}{100}$ or $\frac{15}{20}$ or $\frac{3}{4}$	0.75	75%
$\frac{4}{5}$	0.8	80%



- 1) Charmaine is incorrect.

There is already 40% shaded.

$$\frac{6}{25} = \frac{24}{100} = 24\%$$

$$40\% + 24\% = 64\% = 0.64$$

0.64 has been shaded, this is less than 0.75.



2) a)

$\frac{20}{50}$	A	0.8	C
one-quarter	A	sixty-hundredths	B
$\frac{4}{5}$	C	0.09	A

- b) Multiple answers possible.

Fraction greater than $\frac{1}{2}$, less than 1	Decimal greater than 0.75, less than 1
---	--



- 1) a) Petra's present cost more than Jake's present.

True/False

Petra:

$$40\% = \text{£}20 \quad 10\% = \text{£}20 \div 4 = \text{£}5$$

$$60\% = \text{£}5 \times 6 = \text{£}30 \text{ (cost of present)}$$

Jake:

$$\text{£}18 = 0.3 \quad 0.1 = \text{£}18 \div 3 = \text{£}6$$

$$0.7 = \text{£}6 \times 7 = \text{£}42 \text{ (cost of present)}$$

- b) The amount the two children took shopping was less than 0.8 of £150.

True/False

$$\text{Petra: } 10\% = \text{£}5 \quad 100\% = \text{£}5 \times 10 = \text{£}50 \text{ (amount taken shopping)}$$

$$\text{Jake: } 0.1 = \text{£}6 \quad 100\% = \text{£}6 \times 10 = \text{£}60 \text{ (amount taken shopping)}$$

$$\text{Total: } \text{£}50 + \text{£}60 = \text{£}110$$

$$0.1 \text{ of } \text{£}150 = \text{£}150 \div 10 = \text{£}15$$

$$0.8 \text{ of } \text{£}150 = \text{£}15 \times 8 = \text{£}120$$

- 2) Day 1:

$$25\% = \frac{1}{4}$$

$$\frac{1}{4} \text{ of } 6000\text{m} = 1500\text{m}$$

$$\frac{4}{5} \text{ of } 1500\text{m} = 1500\text{m} \div 5 = 300\text{m} \times 4 = 1200\text{m}$$

$$0.9\text{km} = 900\text{m}$$

$$1500\text{m} + 1200\text{m} + 900\text{m} = 3600\text{m} = 3.6\text{km}$$

$$\text{Left to complete: } 6000\text{m} - 3600\text{m} = 2400\text{m}$$

$$10\% \text{ of } 6000\text{m} = 600\text{m}$$

$$30\% \text{ of } 6000\text{m} = 1800\text{m}$$

Toni has more than 30% of her target left to complete.

Percentage, Decimal and Fraction Colouring Answers

$$10\% \text{ (10 of the 100 squares shaded in)} = \frac{10}{100} = \frac{1}{10} = 0.1$$

$$20\% \text{ (20 of the 100 squares shaded in)} = \frac{20}{100} = \frac{2}{10} \text{ or } \frac{1}{5} = 0.2$$

$$30\% \text{ (30 of the 100 squares shaded in)} = \frac{30}{100} = \frac{3}{10} = 0.3$$

$$40\% \text{ (40 of the 100 squares shaded in)} = \frac{40}{100} = \frac{4}{10} \text{ or } \frac{2}{5} = 0.4$$

$$50\% \text{ (50 of the 100 squares shaded in)} = \frac{50}{100} = \frac{5}{10} \text{ or } \frac{1}{2} = 0.5$$

$$60\% \text{ (60 of the 100 squares shaded in)} = \frac{60}{100} = \frac{6}{10} \text{ or } \frac{3}{5} = 0.6$$

$$70\% \text{ (70 of the 100 squares shaded in)} = \frac{70}{100} = \frac{7}{10} = 0.7$$

$$80\% \text{ (80 of the 100 squares shaded in)} = \frac{80}{100} = \frac{8}{10} \text{ or } \frac{4}{5} = 0.8$$

$$90\% \text{ (90 of the 100 squares shaded in)} = \frac{90}{100} = \frac{9}{10} = 0.9$$

$$100\% \text{ (100 of the 100 squares shaded in)} = \frac{100}{100} = \frac{10}{10} = 1.0$$

$$1\% \text{ (1 of the 100 squares shaded in)} = \frac{1}{100} = 0.01$$

$$5\% \text{ (5 of the 100 squares shaded in)} = \frac{5}{100} = 0.05$$

$$12\% \text{ (12 of the 100 squares shaded in)} = \frac{12}{100} = 0.12$$

$$25\% \text{ (25 of the 100 squares shaded in)} = \frac{25}{100} = \frac{1}{4} = 0.25$$

$$75\% \text{ (75 of the 100 squares shaded in)} = \frac{75}{100} = \frac{3}{4} = 0.75$$

Ultimate Equivalent Fractions, Decimals and Percentages Challenge Activity Sheet **Answers**

Match the following decimal numbers, percentages and fractions.

<p>0.3 — 50% — $\frac{2}{5}$</p> <p>0.5 — 40% — $\frac{1}{5}$</p> <p>0.4 — 70% — $\frac{7}{10}$</p> <p>0.7 — 20% — $\frac{1}{2}$</p> <p>0.9 — 30% — $\frac{9}{10}$</p> <p>0.2 — 90% — $\frac{3}{10}$</p>	<p>0.25 — $\frac{1}{2}$ — 12.5%</p> <p>0.375 — $\frac{1}{8}$ — 50%</p> <p>0.75 — $\frac{7}{8}$ — 87.5%</p> <p>0.5 — $\frac{3}{8}$ — 25%</p> <p>0.125 — $\frac{1}{4}$ — 75%</p> <p>0.875 — $\frac{3}{4}$ — 37.5%</p>
--	---

Write the equivalent fraction (in its simplest form) to the following:

$75\% = \frac{3}{4}$	$30\% = \frac{3}{10}$	$15\% = \frac{3}{20}$	$90\% = \frac{9}{10}$	$50\% = \frac{1}{2}$	$35\% = \frac{7}{20}$
$0.6 = \frac{3}{5}$	$0.95 = \frac{19}{20}$	$0.1 = \frac{1}{10}$	$0.25 = \frac{1}{4}$	$0.625 = \frac{5}{8}$	$0.2 = \frac{1}{5}$
$25\% = \frac{1}{4}$	$0.9 = \frac{9}{10}$	$0.5 = \frac{1}{2}$	$5\% = \frac{1}{20}$	$0.4 = \frac{2}{5}$	$85\% = \frac{17}{20}$

Write the equivalent decimal and percentage to the following:

$\frac{1}{2} = 0.5 = 50\%$	$\frac{3}{4} = 0.75 = 75\%$	$\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{3} = 0.33 = 33.3\%$
$\frac{4}{5} = 0.8 = 80\%$	$\frac{3}{8} = 0.375 = 37.5\%$	$\frac{1}{10} = 0.1 = 10\%$	$\frac{1}{6} = 0.166 = 16.6\%$
$\frac{7}{10} = 0.7 = 70\%$	$\frac{2}{5} = 0.4 = 40\%$	$\frac{5}{8} = 0.625 = 62.5\%$	$\frac{7}{20} = 0.35 = 35\%$

Write the missing equivalent fraction (in its simplest form), decimal or percentage as needed.

$0.7 = \frac{7}{10} = 70\%$	$\frac{1}{8} = 0.125 = 12.5\%$	$75\% = \frac{3}{4} = 0.75$
$20\% = \frac{1}{5} = 0.2$	$0.01 = \frac{1}{100} = 1\%$	$\frac{2}{3} = 0.66 = 66.6\%$

* Allow equivalent fractions and rounding as appropriate for thirds and sixths

Calculations Code Breaker Answers

Reveal a joke by writing the percentage equivalent to the following fractions and decimal fractions. Use the grid to locate the letter that matches each answer.

The joke will read across the tables.

A	B	C	D	E	F	G	H	I	J	K	L	M
6%	15%	21%	5%	13%	24%	18%	7%	12%	1%	25%	19%	9%

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
22%	16%	11%	26%	2%	17%	20%	3%	10%	8%	14%	23%	4%

	0.08	$\frac{7}{100}$	0.06	$\frac{1}{5}$
Answer	8%	7%	6%	20%
Letter	W	H	A	T

	$\frac{18}{100}$	0.16	$\frac{13}{100}$	0.17
Answer	18%	16%	13%	17%
Letter	G	O	E	S

	$\frac{3}{100}$	0.11
Answer	3%	11%
Letter	U	P

	$\frac{2}{25}$	0.07	$\frac{13}{100}$	0.22
Answer	8%	7%	13%	22%
Letter	W	H	E	N

	$\frac{2}{10}$	0.07	$\frac{13}{100}$
Answer	20%	7%	13%
Letter	T	H	E

	0.02	$\frac{6}{100}$	0.12	$\frac{22}{100}$
Answer	2%	6%	12%	22%
Letter	R	A	I	N

	0.21	$\frac{4}{25}$	0.09	$\frac{13}{100}$	0.17
Answer	21%	16%	9%	13%	17%
Letter	C	O	M	E	S

	$\frac{5}{100}$	0.16	$\frac{8}{100}$	0.22	
Answer	5%	16%	8%	22%	
Letter	D	O	W	N	?

	0.06	$\frac{22}{100}$
Answer	6%	22%
Letter	A	N

	0.03	$\frac{9}{100}$	0.15	$\frac{2}{100}$	0.13	$\frac{19}{100}$	0.19	$\frac{6}{100}$	
Answer	3%	9%	15%	2%	13%	19%	19%	6%	
Letter	U	M	B	R	E	L	L	A	.