Percentages to Fractions - Worksheet

Skill

Group A - Percentages to fractions (no simplifying)

Convert the following percentages to fractions:

1) 1%

2) 3%

3) 7%

4) 11%

5) 13%

6) 17%

7) 31%

8) 33%

9) 37%

10) 91%

11) 93%

12) 97%

Group B - Percentages to fractions (simplifying)

Convert the following percentages to fractions. Give your answer in its simplest form:

1) 2%

2) 5%

3) 10%

4) 16%

5) 20%

6) 25%

7) 28%

8) 40%

9) 50%

10) 68%

11) 88%

12) 98%

Group C - Percentages to fractions (mixed numbers)

Convert the following percentages to fractions. Give your answer in its simplest form:

1) 102%

2) 110%

3) 115%

4) 205%

5) 218%

6) 418%

7) 1000%

8) 2500%

9) 3300%

10) 331.5%

11) 444.4%

12) 615.8%

Percentages to Fractions - Worksheet

Applied

1) 20% of the population are left handed.
What fraction are right handed?
Give your answer in its simplest form.

2) In a sale, a shop offers 25% off the original prices.
What fraction is discounted?
Give your answer in its simplest form.

3) There are 60 beads in a bag. The beads are red, yellow or blue.
40% of the beads are blue.
25% of the beads are red.
What fraction of the beads are yellow?

4) Lewis spent 85% of his pocket money this week.
What fraction of his pocket money did he spend?
Give your answer in its simplest form.

5) Tom buys 28 litres of paint. When he finishes painting there is 23% of the paint left.
What fraction of the paint is left?
Give your answer in its simplest form.

6) Claire is completing a maths assessment.
Some of the questions and her answers are below.
Can you spot any mistakes?

(a) Write 40% as a fraction. Give your answer in simplest form.

$$\frac{40}{100} = \frac{4}{10}$$

(b) Write 8% as a fraction. Give your answer in its simplest form.

$$\frac{8}{10} = \frac{4}{5}$$

Percentages to Fractions - Exam Questions

1) **(a)** Write 17% as a fraction.

.....

(1)

(b) Write 70% as a fraction.
Give your answer in its simplest form.

.....

(2)

(3 marks)

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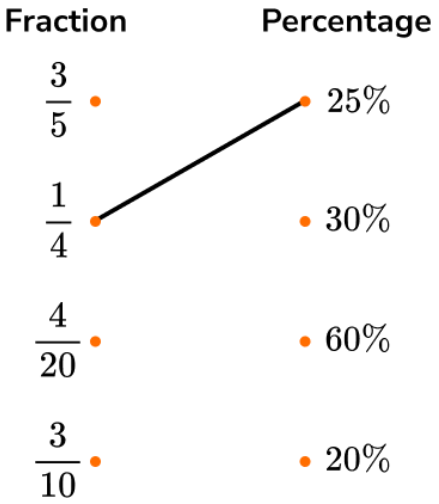
2) Match each percentage and fraction.



.....

(3 marks)

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3) Over a season, a football team won 43% of their matches and drew 26%.

(a) Work out what percentage of games were lost.

.....

(1)

(b) Work out what fraction of the games were drawn.
Give your answer in its simplest form.

.....

(2)

(3 marks)

Percentages to Fractions - Exam Questions

4) **(a)** Write 68.3% as a fraction.
Give your answer in its simplest form.

.....

(2)

(b) Write 0.32% as a fraction.
Give your answer in its simplest form.

.....

(2)

(c) Write 235% as a fraction.
Give your answer in its simplest form.

.....

(2)

(6 marks)

Percentages to Fractions - Answers

	Question	Answer
	Skill Questions	
Group A	Convert the following percentages to fractions: **1)** 1% **2)** 3% **3)** 7% **4)** 11% **5)** 13% **6)** 17% **7)** 31% **8)** 33% **9)** 37% **10)** 91% **11)** 93% **12)** 97%	**1)** $\frac{1}{100}$ **2)** $\frac{3}{100}$ **3)** $\frac{7}{100}$ **4)** $\frac{11}{100}$ **5)** $\frac{13}{100}$ **6)** $\frac{17}{100}$ **7)** $\frac{31}{100}$ **8)** $\frac{33}{100}$ **9)** $\frac{37}{100}$ **10)** $\frac{91}{100}$ **11)** $\frac{93}{100}$ **12)** $\frac{97}{100}$
Group B	Convert the following percentages to fractions. Give your answer in its simplest form: **1)** 2% **2)** 5% **3)** 10% **4)** 16% **5)** 20% **6)** 25% **7)** 28% **8)** 40% **9)** 50% **10)** 68% **11)** 88% **12)** 98%	**1)** $\frac{2}{100} = \frac{1}{50}$ **2)** $\frac{5}{100} = \frac{1}{20}$ **3)** $\frac{10}{100} = \frac{1}{10}$ **4)** $\frac{16}{100} = \frac{4}{25}$ **5)** $\frac{20}{100} = \frac{1}{5}$ **6)** $\frac{25}{100} = \frac{1}{4}$ **7)** $\frac{28}{100} = \frac{7}{25}$ **8)** $\frac{40}{100} = \frac{2}{5}$ **9)** $\frac{50}{100} = \frac{1}{2}$ **10)** $\frac{68}{100} = \frac{17}{25}$ **11)** $\frac{88}{100} = \frac{22}{25}$ **12)** $\frac{98}{100} = \frac{49}{50}$

Percentages to Fractions - Answers

Group C	Convert the following percentages to fractions. Give your answer in its simplest form: **1)** 102% **2)** 110% **3)** 115% **4)** 205% **5)** 218% **6)** 418% **7)** 1000% **8)** 2500% **9)** 3300% **10)** 331.5% **11)** 444.4% **12)** 615.8%	**1)** $1\frac{1}{50}$ **2)** $1\frac{1}{10}$ **3)** $1\frac{3}{20}$ **4)** $2\frac{1}{20}$ **5)** $2\frac{9}{50}$ **6)** $4\frac{9}{50}$ **7)** 10 **8)** 25 **9)** 33 **10)** $3\frac{63}{200}$ **11)** $4\frac{111}{250}$ **12)** $6\frac{79}{500}$

Percentages to Fractions - Answers

	Question	Answer
	Applied Questions	
1)	20% of the population are left handed. What fraction are right handed? Give your answer in its simplest form.	$\frac{4}{5}$
2)	In a sale, a shop offers 25% off the original prices. What fraction is discounted? Give your answer in its simplest form.	$\frac{1}{4}$
3)	There are 60 beads in a bag. The beads are red, yellow or blue. 40% of the beads are blue. 25% of the beads are red. What fraction of the beads are yellow?	$\frac{7}{20}$
4)	Lewis spent 85% of his pocket money this week. What fraction of his pocket money did he spend? Give your answer in its simplest form.	$\frac{17}{20}$
5)	Tom buys 28 litres of paint. When he finishes painting there is 23% of the paint left. What fraction of the paint is left? Give your answer in its simplest form.	$\frac{23}{100}$
6)	**a)** Claire is completing a maths assessment. Some of the questions and her answers are below. Can you spot any mistakes? Write 40% as a fraction. Give your answer in its simplest form. $\frac{40}{100} = \frac{4}{10}$ **b)** Write 8% as a fraction. Give your answer in its simplest form. $\frac{8}{10} = \frac{4}{5}$	**a)** $\frac{4}{10}$ can be simplified further to $\frac{2}{5}$ **b)** 8% should be written as $\frac{8}{100}$ before simplifying to $\frac{4}{50}$ and then $\frac{2}{25}$.

Percentages to Fractions - Mark Scheme

	Question	Answer	
	Exam Questions		
1) (a)	Write 17% as a fraction.	**(a)** $\frac{17}{100}$	**(1)**
(b)	Write 70% as a fraction. Give your answer in its simplest form.	**(b)** $\frac{70}{100}$ **(1)** $\frac{7}{10}$ **(1)**	**(2)**
2)	Match each percentage and fraction. **Fraction** **Percentage** $\frac{3}{5}$ • 25% $\frac{1}{4}$ • 30% $\frac{4}{20}$ • 60% $\frac{3}{10}$ • 20%	1 mark per correct answer **Fraction** **Percentage** $\frac{3}{5}$ 25% $\frac{1}{4}$ 30% $\frac{4}{20}$ 60% $\frac{3}{10}$ 20%	**(3)**
3)	Over a season, a football team won 43% of their matches and drew 26%.		
(a)	Work out what percentage of games were lost.	**(a)** 31%	**(1)**
(b)	Work out what fraction of the games were drawn. Give your answer in its simplest form.	**(b)** $\frac{26}{100}$ **(1)** $\frac{13}{50}$ **(1)**	**(2)**

Percentages to Fractions - Mark Scheme

4) (a)	Write 68. 3% as a fraction. Give your answer in its simplest form.	**(a)** $\frac{68.3}{100}$ **(1)** $\frac{683}{1000}$ **(1)**	**(2)**
(b)	Write 0. 32% as a fraction. Give your answer in its simplest form.	**(b)** $\frac{0.32}{100}$ or $\frac{32}{10000}$ **(1)** $\frac{2}{625}$ **(1)**	**(2)**
(c)	Write 235% as a fraction. Give your answer in its simplest form.	**(c)** $\frac{235}{100}$ or $2\frac{35}{100}$ **(1)** $2\frac{7}{20}$ **(1)**	**(2)**