

Boost Free Lessons - Year 7 Maths

Lesson 11: Percentages and Fractions

Name: _____ Grade: _____ Date: _____

Worked Example 1

Write 45% as a fraction in its simplest form.

1. Per cent means “out of 100”, so write it over 100: $\frac{45}{100}$.
2. Find the highest common factor of 45 and 100. It is 5.
3. Divide top and bottom by 5: $45 \div 5 = 9$ and $100 \div 5 = 20$.

$$45\% = \frac{9}{20}$$

Worked Example 2

Write $\frac{3}{8}$ as a percentage.

1. To convert a fraction to a percentage, multiply it by 100.
2. Write 100 as a fraction by putting it over 1: $100 = \frac{100}{1}$.
3. So the question becomes $\frac{3}{8} \times \frac{100}{1}$.
4. Multiply the tops together: $3 \times 100 = 300$. Multiply the bottoms together: $8 \times 1 = 8$.
5. That gives $\frac{300}{8}$. Divide to finish: $300 \div 8 = 37.5$.

$$\frac{3}{8} = 37.5\%$$

Remember: Fraction $\rightarrow$ percentage: multiply by 100. Percentage $\rightarrow$ fraction: write it over 100 and simplify.



Question 1: Write each percentage as a fraction in its simplest form.

1. 50%

2. 25%

3. 60%

4. 80%

5. 15%

6. 12%

7. 35%

8. 90%

9. 5%

10. 64%



Question 2: Write each fraction as a percentage.

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

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

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

4. $\frac{7}{10}$

5. $\frac{1}{8}$

6. $\frac{5}{8}$

7. $\frac{9}{20}$

8. $\frac{1}{3}$



Question 3: Answer the following questions.

1. 18 out of 25 students walk to school. What percentage is this?
2. Liam scored $\frac{21}{30}$ on a quiz. What is his percentage score?
3. $\frac{3}{5}$ of a fuel tank has been used. What percentage remains?
4. A survey found that 44% of people preferred cricket. Write this as a fraction in simplest form.
5. Which is bigger, $\frac{3}{8}$ or 40%? Show your working.



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Answers : Percentages and Fractions**Question 1**

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

2. $\frac{1}{4}$

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

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

5. $\frac{3}{20}$

6. $\frac{3}{25}$

7. $\frac{7}{20}$

8. $\frac{9}{10}$

9. $\frac{1}{20}$

10. $\frac{16}{25}$

Question 2

1. 50%

2. 75%

3. 40%

4. 70%

5. 12.5%

6. 62.5%

7. 45%

8. $33\frac{1}{3}\%$

Question 3

1. 72%

2. 70%

3. 40%

4. $\frac{11}{25}$

5. $\frac{3}{8} = 37.5\%$, so 40% is bigger

