

Converting Fractions, Decimals & Percentages



LEVEL 1: The Basics

Q1: Convert each number to the indicated form.

TYPE 1: Fractions to Decimals

❖ $\frac{1}{2}$

❖ $\frac{3}{4}$

❖ $\frac{7}{20}$

TYPE 2: Decimals to Fractions

❖ 0.5

❖ 0.125

❖ 1.4

TYPE 3: Decimals to Percentages

❖ 0.24

❖ 0.3

❖ 0.01

TYPE 4: Percentages to Decimals

❖ 36%

❖ 9%

❖ 120%

Q2: Complete this table.

Fraction	Decimal	Percentage
$\frac{6}{10}$	0.6	
	0.3	
		25%
$\frac{3}{4}$		75%

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LEVEL 2: Dive Deeper

Q1: Convert each number to the indicated form.

TYPE 1: Fractions to Decimals

❖ $\frac{3}{5}$

❖ $\frac{7}{21}$

❖ $\frac{3}{8}$

TYPE 2: Decimals to Fractions

❖ 0.666 ...

❖ 2.01

❖ 0.006

TYPE 3: Decimals to Percentages

❖ 0.43

❖ 0.019

❖ 2.1

TYPE 4: Percentages to Decimals

❖ 115%

❖ 0.9%

❖ 200%

Q2: Compare using $<$, $>$, or $=$

❖ $0.8 \underline{\hspace{0.5cm}} \frac{4}{5}$

❖ $25\% \underline{\hspace{0.5cm}} 0.2$

❖ $\frac{1}{2} \underline{\hspace{0.5cm}} 50\%$

❖ $0.125 \underline{\hspace{0.5cm}} \frac{1}{8}$

❖ $\frac{7}{10} \underline{\hspace{0.5cm}} 70\%$

Q3: On a math test, Sarah answered 18 out of 20 questions correctly. What percentage did she score?

Express this as a decimal and a simplified fraction.

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LEVEL 3: Mastering the Concept

Q1: Complex Conversions

- ❖ Convert 36% to a simplified fraction and a decimal.
 - ❖ Convert 0.005 to a percentage and a simplified fraction.
 - ❖ Convert 0.1666... (repeating) to a fraction.
 - ❖ Convert $\frac{1}{7}$ to a decimal (round to 2 decimal places).
 - ❖ Convert $2\frac{1}{3}$ to a decimal (round to 3 decimal places) and a percentage.
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Q2: Operations with Mixed Forms (10 questions)

- ❖ If a shirt cost \$40 and is on sale for 25% off, what is the discount in dollars?
 - ❖ What is $\frac{1}{3}$ of 90? What is 30% of 90? Compare the results.
 - ❖ Calculate $\frac{1}{2} + 0.25 + 10\%$ (express answer as a decimal).
 - ❖ Calculate 75% of 200, then subtract $\frac{1}{5}$ of 100 (express answer as a whole number).
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Q3: Arrange in order, from smallest to largest.

$$\frac{7}{10}, 0.9, \frac{4}{5}, 0.77, \frac{3}{4}$$

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EXTRA PROBLEMS:

- 1) A test has 40 questions. You got 34 correct. What's your % score?

- 2) What is 0.75 of 60?

- 3) A pen cost \$1.20. This is 80% of the original price. What was the original price?

- 4) A student says $0.5 = 5\%$. Is this correct? Explain.

- 5) A student converted 0.003 to a percentage and got 3%. Explain the mistake and provide the correct conversion.

- 6) A survey found that 0.4 of students prefer apples, $\frac{3}{8}$ prefer bananas, and the rest prefer oranges.
What percentage of students prefer oranges?