

Semester 1 Final Review

UNIT 1



Solve for m

$$\frac{9}{2} = \frac{m}{12}$$

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$$\frac{108}{2} = \frac{2m}{2}$$

$$54 = m$$

Solve for m

$$\frac{3m}{20} = \frac{3}{10}$$

Solve for m

$$\frac{3m}{20} = \frac{3}{10}$$

$$\frac{30m}{30} = \frac{60}{30}$$

$$m = 2$$

Solve for m

$$\frac{4}{x} = \frac{8}{x-3}$$

Solve for m

$$\frac{4}{x} = \frac{8}{x-3}$$

$$4(x-3) = 8x$$

$$4x - 12 = 8x$$

$$\frac{-12}{4} = \frac{4x}{4}$$

$$\boxed{-3 = x}$$

What number is 45% of 92?

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$$\frac{\text{is}}{\text{of}} = \frac{\%}{100}$$

$$\boxed{x = 41.4}$$

$$\frac{x}{92} = \frac{45}{100}$$

$$\frac{100x}{100} = \frac{4140}{100}$$

What percent of 25 is 17?

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$$\frac{17}{25} = \frac{x}{100}$$

$$\frac{1700}{25} = \frac{25x}{25}$$

$$\boxed{68 = x}$$

52 is 15% of what number?

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$$\frac{52}{x} = \frac{15}{100}$$

$$\frac{5200}{15} = \frac{15x}{15}$$

$$346.67 = x$$

You go out to mini golf with a big group of friends, and the total bill is \$75. You have a coupon to save 10%. How much money do you save on your total?

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$$75 \times .10 = 7.50$$

$$\$7.50$$

Solve for y.

$$6x = 3y - 4$$

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$$\begin{array}{r} +4 \\ \hline 6x + 4 = 3y \end{array}$$

$$2x + \frac{4}{3} = y$$

Solve for y.

$$-10x - 2y = 6$$

Solve for y.

$$\begin{array}{l}
 -10x - 2y = 6 \\
 +10x \qquad \qquad +10x \\
 \hline
 -2y = 10x + 6 \\
 \frac{-2y}{-2} = \frac{10x+6}{-2} \\
 \boxed{y = -5x - 3}
 \end{array}$$

Solve for y.

$$-5x + 10y = 12$$

Solve for y.

$$\begin{array}{l}
 -5x + 10y = 12 \\
 +5x \qquad \qquad +5x \\
 \hline
 10y = 5x + 12 \\
 \frac{10y}{10} = \frac{5x+12}{10} \\
 y = \frac{5}{10}x + \frac{12}{10} \\
 \boxed{y = \frac{2}{5}x + \frac{6}{5}}
 \end{array}$$