

NAME: _____



Purpose

Use an equation to find the original amount or the new amount in a percent problem

Math Words

original amount

The original amount, before you take a percent of it, is 100%.

base

The original amount is sometimes called the base.

equation

$20\% \cdot n = 8$

Two ways to read this equation are: "Twenty percent of a number is equal to eight" and "Twenty percent times n is equal to eight."

Starter Problem

Solve.

Jody saved \$90 this week. This is 60% of the amount she earned. How much did she earn? _____

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Student Thinking

Anjuli

First I restated the problem, "60% of the original amount Jody earned is equal to \$90." That helped me write an equation.

I divided both sides of the equation by 0.6 to solve for n .



$$60\% \cdot n = \$90$$

$$0.6 \cdot n = \$90$$

$$n = \$150 \text{ Jody earned } \$150$$

$$\begin{array}{r} 150. \\ 0.6 \overline{)90.0} \\ \underline{6} \\ 30 \\ \underline{30} \\ 0 \end{array}$$



Lan

Since "of" means multiply, I wrote an equation to find 60% of \$90. She earned \$54.



$$60\% \cdot \$90 = n$$

$$0.6 \cdot \$90 = n$$

$$54 = n$$

$$\begin{array}{r} 90 \\ \underline{0.6} \\ 54.0 \end{array}$$

Things to Remember

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Our Turn

Solve each word problem using an equation.

1. 42% of people surveyed said they went to a movie during the past month. If 210 people said they went to a movie, how many were surveyed?

2. A club has raised \$84 for their next party. This is 120% of their goal. How much was their goal?

3. 75 kids at a camp volunteered for a service project. The counselors choose 8% of the volunteers to pick up trash. How many kids were asked to pick up trash?

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My Turn

Solve each word problem using an equation.

1. A club has raised \$200 for a big party. This is 125% of their goal. How much is their goal?

2. Trina worked part-time jobs to earn a total of \$600. She calculated that 24% of that amount was used to pay for her car insurance. How much did she pay for her car insurance?

3. Ned put some money in a bank account that earned 4% interest. He earned \$24.00 in interest. What was his original amount?

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Multiple Choice Mini Lesson

Fill in the circle next to the answer you choose.

1. Jolene scored 240 points on the video game. Caroline's score was 75% of Jolene's. How many points did Caroline score?

☐ 320 ☐ 60 ☐ 165 ☐ 180

2. Martina has a goal for the number of minutes she will exercise each day. Today she exercised for 60 minutes, which was 120% of her goal. How many minutes did she set for her goal?

☐ 7.2 ☐ 50 ☐ 72 ☐ 500



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Writing Task Mini Lesson

Explain how you could check whether a pair of shoes with a sale price of \$38.99 is about 65% of the original \$60 price.



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