Accelerated Math
Using Percent Equations
Section 6-3

A percent equation is an equivalent form of a percent proportion in which the percent is written as a decimal.

2 is 17% of what number?

Let n = the # (that represents the whole)

Part = Percent (written as a decima) times **Whole**

$2 = 0.17(n)$

Then solve the equation

62% of 75 is what number?

Let n = the number

$0.62(75) = n$

$46.5 = n$

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64 is what percent of 90 ?

Let n = % written as a decimal

$64 = n(90)$

$\frac{64}{90} = \frac{n(90)}{90}$

$0.7\bar{1} = n$

$71.\bar{1}\ \%$

Show work like this

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24 is 36% of what number?

Let n = the number

$24 = 0.36n$

$\frac{24}{0.36} = \frac{0.36n}{0.36}$

$66.\bar{6} = n$

A model is 0.25% of the actual size. If the model is 15 inches long, what is the actual size in feet?

Let n = the actual size (in feet)
15 inches = 1.25 feet

Model length = 0.25% of actual size.

$1.25 = .0025n$

$\frac{1.25}{.0025} = \frac{.0025n}{.0025}$

$500 = n$

500 ft

An item is on sale for 40% off of its regular price of $56. Find its sale price.

Let n = the sale price

40% off means you pay 60%

The sale price is 60% of the regular price.

$n = 0.6(56)$

$n = 33.6$

$33.60

A car costs $30,000. Sales tax is 6%. Find the total price of the car including tax.

Let n = total price of car (including tax)

The total price is 106% of the price of the car.

$n = 1.06(30{,}000)$

$n = 31800$

$31,800

Meg is getting a raise on her monthly salary of $4200. Her new salary will be $4389 per month. Find the percent of her raise.

Let n = percent raise written as a decimal

Her raise is what percent of her original salary.

$4389 - 4200$

$189 = n(4200)$

$\frac{189}{4200} = \frac{4200n}{4200}$

$0.045 = n$

4.5% raise