

# Percent

The word “percent” is actually two words. In Latin, per means “divided by” and cent is the root word for “one hundred” (think “century”). So percent means divided by 100, or “hundredths.”

## Some facts and short-cuts about percent.

100% of anything is all of it. It’s the same as multiplying by 1. So 200% is multiplying by 2, 300% by 3, and so on.

Any percent of 100 is that number. When you multiply a percent times a number, it doesn’t matter mathematically which number is the percent. So 18% of 100 is the same as 100% of 18, or 18.

Carrying the last tip one step further, you can use that process to find any familiar percent of numbers. Most folks know that 50% is one-half and 25% is one-fourth. So if you need to find 14% of 50, just think of it as 50% of 14, then take half of 14, or 7. Similarly, 36% of 25 looks hard, but 25% of 36 is easy... it’s 9.

Some percents are easier than others.

We know that 100% is the same as multiplying by 1.

So 10% is the same as multiplying by 0.1, or dividing by 10, or just moving the decimal point one place to the left. So if you tip 10% (you piker!) and your bill is \$37.50, then your tip is \$3.75.

Similarly, 1% is multiplying by 0.01, or dividing by 100, or just moving your decimal point two places left. One percent of 4865.9 is 48.659.

Most folks know that 50% is one-half. So if you need 50% of a number, divide it by 2.

Also, 25% of anything is one-fourth, so divide the number by 4.

Twenty percent is not hard if you know the numbers above. Just find 10%, then double it.

If you tip 20% (the new standard), then find 10% and double it. If your meal is 47.20, 10% is \$4.72, and 20% is \$9.44. (Of course, most folks would leave \$9, \$9.50, or \$10.)

For 15% (a common tip), find 10%, then take half of that, and add it back on.

$(10\% + \frac{1}{2} \cdot 10\% = 15\%)$

### **In Chart form:**

100% → Multiply (or divide) by 1

50% → Divide by 2

33 $\frac{1}{3}$ % → Divide by 3

25% → Divide by 4

20% → Move decimal one place left, then multiply by 2

10% → Move decimal one place left

5% → Move decimal one place left, then divide by two

1% → Move decimal two places left

Using 60 as our base,

100% of 60 = 60

50% of 60 = 30

33 $\frac{1}{3}$ % of 60 = 20

25% of 60 = 15

20% of 60 = 12

10% of 60 = 6

5% of 60 = 3

1% of 60 = 0.6