

# Key

## How can I find the percent of a number?!

I need you to start giving me 110%

no problem... I've worked 44-hour weeks before



You're in luck! It's SOOOO easy!

**Step 1:** Change the percent to a decimal

(Just move the decimal 2 spaces **LEFT**)

**Step 2:** Multiply.

(**QF** is a key word that tells us to multiply!)

**Step 3:** Chill, You're done!

### A few percent reminders:

- Any percent of 100 is that number.

Ex: 15% of 100 = 15, 48% of 100 = 48, etc.

- 100% of anything is that number

Ex: 100% of 50 = 50, 100% of 365 = 365

- More than 100% of a number is larger than the given number.

Ex: 110% of 50 = 55, 300% of 65 = 192

- 50% of a number finds **HALF** of a number!

Ex: 50% of 10 = 5, 50% of 30 = 15

### Let's try one together:

Find 15% of 250

15% = .15, so now we have .15 x 250

15% of 250 = 37.5



### Now You Try!

1. What is 50% of 80?  $.50(80) =$
2. What is 35% of 250?  $.35(250) =$
3. What is 150% of 20?  $1.50(20) =$
4. What is 6% of 38?  $.06(38) =$
5. What is 75% of 80?  $.75(80) =$
6. What is 200% of 3?  $2(3) =$
7. What is 100% of 25.7?  $1(25.7) =$
8. What is 3.5% of 70?  $.035(70) =$

### Scale Drawings

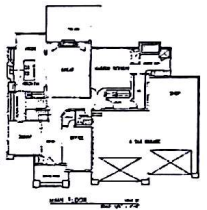
\* What is scale factor? The ratio of any 2 corresponding lengths in 2 similar geometric figures.

\* In a scale drawing, the scale factor is the ratio of the measurement on the drawing to the measurement of the actual object/size

\* The scale on the blueprint says that  $\frac{1}{4}'' = 1'$ . What does that mean? For every  $\frac{1}{4}''$  on the drawing, it is 1' in actual size.

\* Scale drawings are \_\_\_\_\_ to the objects they represent.

\* What are some common examples or uses of scale drawings?



\* **Example:** Finding Actual Distances: The scale on a map is 4 in = 1 mi. On the map, the distance between two towns is 20 inches. What is the actual distance? Show all work below.

Work to solve the problem:

Explanation:

$$\frac{4 \text{ in}}{1 \text{ mi}} = \frac{20 \text{ in}}{x}$$

$$\frac{4x}{4} = \frac{20}{4}$$

$$x = 5$$

The actual distance is 5 miles.

### Lesson Review: Try These! @

On a map of the Great Lakes area, 2 cm = 45 km. For problem #s 1-4, copy down their distances on the map. Then, determine their actual distances. Show work on the left page of your MSG.

1. Detroit to Cleveland is \_\_\_\_\_ cm on the map, and \_\_\_\_\_ km in real life.
2. Duluth to Nipigon is \_\_\_\_\_ cm on the map, and \_\_\_\_\_ km in real life.
3. Buffalo to Syracuse is \_\_\_\_\_ cm on the map, and \_\_\_\_\_ km in real life.
4. Sault Ste. Marie to Toronto is \_\_\_\_\_ cm on the map, and \_\_\_\_\_ km in real life.
5. Distance from Detroit to State Park is \_\_\_\_\_ km in real life, and \_\_\_\_\_ cm on the map.

