

We will compute<sup>1</sup> a percent of a whole number.

## CFU

What are we going to do?

What does *compute* mean?

*Compute* means \_\_\_\_\_.

## Activate Prior Knowledge

A **percent** (%) is part of 100.

- A percent can also be written in *decimal form*.

$$25\% = \frac{25}{100} = 0.25$$

ones
tenths
hundredths

Convert the percent to a decimal number.

$$1. \quad 48\% = \frac{\quad}{100} = \boxed{\quad}.\boxed{\quad}\boxed{\quad}$$

ones
tenths
hundredths

$$2. \quad 72\% = \frac{\quad}{100} = \boxed{\quad}.\boxed{\quad}\boxed{\quad}$$

ones
tenths
hundredths

Use a shortcut to convert the percent to a decimal number.

$$3. \quad 50\% =$$

$$4. \quad 80\% =$$

## Make Connection

Students, you know that a percent can be written as a decimal number. Now, we will use this skill to compute a percent of a whole number.

## Vocabulary

<sup>1</sup> find the answer mathematically

A **percent (%)** is part of 100.

A **percent of a whole number** is a part of a whole number.

- *To compute the percent of a whole number, multiply the whole number by the percent's decimal form.*

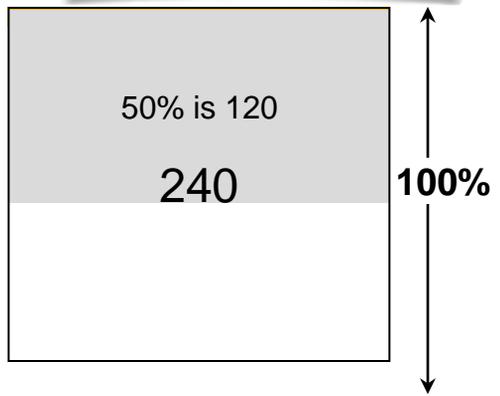
**Keywords**

<b>of</b>	<i>means</i>	<b>×</b>
<b>is</b>	<i>means</i>	<b>=</b>

### Percent of a Whole Number

**50%** of **240** is **120**

*percent*                      *whole number*                      *percent of the whole number*



<u>Percent Problem</u>	<u>Compute As</u>	<u>% of Whole Number</u>
<b>50% of 240</b>	$240 \times \mathbf{0.50}$	<b>120</b>
<b>20% of 240</b>	$240 \times \mathbf{0.20}$	<b>48</b>
<b>5% of 240</b>	$240 \times \mathbf{0.05}$	<b>12</b>

#### CFU

Which is the correct way to compute 25% of 80? How do you know?

- A  $80 \times 25$
- B  $80 \times 0.25$

You are trying to compute 65% of 400. Without computing the problem, which of the following would be true of your solution? How do you know?

- A The solution will be greater than 400
- B The solution will be less than 400

In your own words, what is a percent of a whole number? A percent of a whole number is \_\_\_\_\_.

**Keywords****of** means  $\times$ **is** means  $=$ A **percent** (%) is part of 100.A **percent of a whole number** is a part of a whole number.**Compute a percent of a whole number.**

- 1 Read the problem and identify<sub>2</sub> the percent. (circle)
- 2 Compute the percent of the whole number as follows:
  - a Find the decimal form of the percent.
  - b Multiply the whole number by the decimal form.
- 3 Interpret<sub>3</sub> the percent of the whole number. “ \_\_\_ is \_\_\_% of \_\_\_ ”

1. What is 20% of 30?	2. What is 30% of 40?
3. What is 90% of 180?	4. What is 70% of 160?

**CFU**

- 2 How did I/you compute the percent of the whole number?
- 3 How did I/you interpret the percent of the whole number?

**Vocabulary**

- <sup>2</sup> find (synonym)  
<sup>3</sup> explain (synonym)

**Keywords****of** means  $\times$ **is** means  $=$ 

A **percent** (%) is part of 100.

A **percent of a whole number** is a part of a whole number.

**Compute a percent of a whole number.**

- 1 Read the problem and identify the percent. (circle)
- 2 Compute the percent of the whole number as follows:
  - a Find the decimal form of the percent.
  - b Multiply the whole number by the decimal form.
- 3 Interpret the percent of the whole number. “\_\_\_\_\_ is \_\_\_% of \_\_\_\_\_”

5. What is 2% of 150?

6. What is 5% of 180?

**CFU**

- 2 How did I/you compute the percent of the whole number?
- 3 How did I/you interpret the percent of the whole number?

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**Skill Closure**

**Compute a percent of a whole number.**

- 1 Read the problem and identify the percent. (circle)
- 2 Compute the percent of the whole number as follows:
  - a Find the decimal form of the percent.
  - b Multiply the whole number by the decimal form.
- 3 Interpret the percent of the whole number. “\_\_\_ is \_\_\_% of \_\_\_”

1. What is 60% of 75?

2. What is 8% of 100?

**Constructed Response Closure**

When computing **75% of 60**, which of the following is true? Explain your answer.

A The solution will be greater than 60 \_\_\_\_\_

B The solution will be less than 60 \_\_\_\_\_

**Summary Closure**

What did you learn today about computing a percent of a whole number? (Pair-Share)

Day 1 \_\_\_\_\_

Day 2 \_\_\_\_\_

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**Compute a percent of a whole number.**

- ① Read the problem and identify the percent. (circle)
- ② Compute the percent of the whole number as follows:
  - a Find the decimal form of the percent.
  - b Multiply the whole number by the decimal form.
- ③ Interpret the percent of the whole number. “\_\_\_\_\_ is \_\_\_\_% of \_\_\_\_\_”

1. What is 60% of 25?

2. What is 30% of 65?

3. What is 80% of 210?

4. What is 4% of 120?

## Independent Practice (continued)

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### Compute a percent of a whole number.

- ① Read the problem and identify the percent. (circle)
- ② Compute the percent of the whole number as follows:
  - a Find the decimal form of the percent.
  - b Multiply the whole number by the decimal form.
- ③ Interpret the percent of the whole number. “\_\_\_\_\_ is \_\_\_% of \_\_\_\_\_”

5. What is 5% of 140?

6. What is 4% of 160?

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  - b Multiply the whole number by the decimal form.
- ③ Interpret the percent of the whole number. “\_\_\_\_ is \_\_\_\_% of \_\_\_\_”

1. What is 50% of 18?

2. What is 20% of 85?

3. What is 70% of 210?

4. What is 8% of 120?

**Keywords**

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**Compute a percent of a whole number.**

- 1 Read the problem and identify the percent. (circle)
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- 3 Interpret the percent of the whole number. “\_\_\_ is \_\_\_% of \_\_\_”

1. What is 30% of 22?	2. What is 10% of 75?
3. What is 80% of 310?	4. What is 6% of 55?

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- ③ Interpret the percent of the whole number. “\_\_\_\_\_ is \_\_\_\_% of \_\_\_\_\_”

1. What is 20% of 35?

2. What is 40% of 105?

3. What is 60% of 246?

4. What is 2% of 329?