

# Percents Greater Than 100% and Less Than 1%

Lesson 4-3

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class: \_\_\_\_\_

## Key Vocabulary

Level 1 support

Picture first, then the word, then a plain-language meaning. Say each word out loud.

*45% means 45 out of 100*

### Percent

A way to compare a number to 100, shown with the % sign.

*150% means 1.5 times the whole*

### Greater than 100%

A percent bigger than 100%, more than the whole thing.

*0.5% of 1,000 = only 5 items – a tiny sliver*

### Less than 1%

A percent smaller than 1%, a very tiny part.

*150% = 1.5 = 3/2*

### Equivalent

Having the same value, just written a different way.

*150% = 1 and 1/2 = 1.5*

### Mixed number

A whole number plus a fraction, like 1 1/2.

## Key Ideas & Notes

- The arcade just posted its monthly leaderboard!
- Some players crushed the target score — one player hit 150% of the goal!
- Meanwhile, a rare bonus round gives only a 0.5% point boost.
- You need to understand what these unusual percents really mean to read the leaderboard correctly.
- Sort each value into the correct category: Greater than 100%, Between 1% and 100%, or Less than 1%.

### Think About It

- What does it mean when a score is shown as 150% of the target?
- Can a percent be less than 1%? What would that look like?
- How do you write a percent greater than 100% as a decimal or fraction?

### My Notes

---

---

---

---

---

## Guided Examples

### Example 1

**Which of the following is greater than 100%?**

**Solution:**  $1.25 = 125\%$ , which is greater than 100%. The other values are all less than 1 (less than 100%).

**Answer:** C. 1.25

### Example 2

**What is 200% written as a decimal?**

**Solution:**  $200\% \div 100 = 2.0$ . Percents greater than 100% become decimals greater than 1.

**Answer:** A. 2.0

### Example 3

**What is 0.5% written as a decimal?**

**Solution:**  $0.5\% \div 100 = 0.005$ . Move the decimal two places to the left.

**Answer:** A. 0.005

# Write About the Math

## The Writing Revolution

I can explain my reasoning using the words percent, greater than 100%, less than 1%, and equivalent.

### 1. Kernel Sentence subject + verb

**Model:** Percent is a way to compare a number to 100, shown with the % sign.

*Porcentaje es una manera de comparar un número con 100, con el signo %.*

**Write a kernel sentence about percent. Use a subject and a verb.**

*Escribe una oración base sobre porcentaje. Usa un sujeto y un verbo.*

---

---

### 2. Sentence Expansion because · but · so

**Kernel:** Percent matters in math

*Porcentaje importa en matemáticas*

Expand the kernel three ways. Add a reason, a contrast, and a result.

**because**

*porque*

**Percent matters in math because \_\_\_\_.**

*Porcentaje importa en matemáticas porque \_\_\_\_.*

---

**but**

*pero*

**Percent matters in math, but \_\_\_\_.**

*Porcentaje importa en matemáticas, pero \_\_\_\_.*

---

**so**

*entonces*

**Percent matters in math, so \_\_\_\_.**

*Porcentaje importa en matemáticas, entonces \_\_\_\_.*

---

### 3. Sentence Types 4 ways to write a math idea

**Statement**  
*Afirmación*

Tell one true fact about percent.  
*Di un hecho verdadero sobre percent.*

**Percent** \_\_\_\_.

---

**Question**  
*Pregunta*

Ask a question about percent.  
*Haz una pregunta sobre percent.*

**How does** \_\_\_\_ ?  
*¿Cómo* \_\_\_\_ ?

---

**Exclamation**  
*Exclamación*

Show excitement about percent.  
*Muestra entusiasmo sobre percent.*

**Wow,** \_\_\_\_ !  
*¡Guau,* \_\_\_\_ !

---

**Command**  
*Mandato*

Tell a partner what to do with percent.  
*Dile a un compañero qué hacer con percent.*

**First,** \_\_\_\_ .  
*Primero,* \_\_\_\_ .

---

### 4. Explain Your Reasoning use a sentence starter

\_\_\_\_% means \_\_\_\_.

\_\_\_\_% significa \_\_\_\_.

**It is more / less than the whole because** \_\_\_\_.

*Es más / menos que el todo porque* \_\_\_\_.

**I see big percents when** \_\_\_\_.

*Veo porcentajes grandes cuando* \_\_\_\_.

---

---

---

## Try It

Solve on your own. Check the answer key when you are done.

**1. Which percent is less than 1%?**

- A. 0.75%
- B. 7.5%
- C. 75%
- D. 1.5%

Show your work:

---

---

---

**2. A player scored 0.4% of the bonus points. Which decimal represents this percent?**

- A. 0.4
- B. 0.04
- C. 0.004
- D. 4.0

Show your work:

---

---

---

## Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

**A game character has 300% of its original health after picking up a power-up. If the original health was 80 points, how many health points does the character have now? A student says 240 points. Another says 380 points. Who is correct and why?**

*Sentence starter: The student who said \_\_\_\_ is correct because 300% means \_\_\_\_ times the original, so \_\_\_\_  $\times 80 =$  \_\_\_\_.*

Show your work:

---

---

---

---

## Reflect — Exit Ticket

**Which statement is true about 0.25%?**

- A. It equals 0.0025 as a decimal
- B. It equals 0.25 as a decimal
- C. It equals  $\frac{1}{4}$  as a fraction
- D. It is greater than 1%

Your answer:

---

---

---

---

## Answer Key & Teacher Guide

1. **Try It 1:** A.  $0.75\%$  —  $0.75\%$  is less than 1%. All the other choices are greater than 1%.
2. **Try It 2:** C.  $0.004$  —  $0.4\% = 0.4 \div 100 = 0.004$ . Move the decimal point two places to the left.
3. **Exit Ticket:** A. It equals 0.0025 as a decimal —  $0.25\% = 0.25 \div 100 = 0.0025$ . It is much less than 1%, not equal to  $1/4$ .

### Writing (TWR) — what to look for

- **Kernel sentence:** A complete sentence needs a subject and a verb. Example: Percent is a way to compare a number to 100, shown with the % sign.
- **Expansion:** *because* gives a reason, *but* shows a contrast or exception, *so* shows a result. Answers vary; each must keep the kernel idea and add the correct kind of detail.
- **Sentence types:** Statement ends with a period, question with "?", exclamation with "!", and a command starts with an action verb (a "bossy" verb).