

Pre-Algebra

Essential Question: How can we represent part of a whole as a percent using an equation?

Do Now: Read each statement/scenario below. Identify the quantities as either the *part*, *percent* or *whole*. Take a look at the first example that has been done for you.

Statement/Scenario	Part	Percent	Whole
1. 40% of the students on the field trip love the museum. If there are 20 students on the field trip, how many love the museum?	?	40%	20
2. 40% of the students on the field trip love the museum. If 20 students love the museum, how many students are on the field trip?			
3. 20 students on the field trip love the museum. If there are 40 students on the field trip, what percent love the museum?			
4. 15 is what percent of 90?			
5. What number is 10% of 56?			
6. 90% of a number is 180. What's the number?			

The Percent Equation



Think about this...

How would you find the answer to #'s 4, 5 and 6 from the Do Now?

Percent Equation	Statement (Words)	Equation (Symbols)
Part = % • Whole what number: N percent: % is: = of: ×	4. 15 is what percent of 90?	
	5. What number is 10% of 56?	
	6. 90% of a number is 180. What's the number?	

Using The Percent Equation to Solve Problems (Part = % • Whole)

1. What number is 45% of 90?
2. 27 is 30% of what number?

3. 25.5 is what percent of 85?
4. 162% of 35 is what number?

Turn and Talk



1. A number, **A**, is 150% of a number **B**. Is **A** greater than, less than or equal to **B**? Explain.

2. Which statements represent the same number? Find the number **n** in each statement.

- a. A number **n** is 20% of 55
- b. 55 is 20% of a number **n**.
- c. The product of $\frac{1}{5}$ and 55 is a number **n**.
- d. 0.2 of 55 is a number **n**.

Summary

A whole is represented by _____%. The formula _____ can be used to problem-solve when given two terms out of three from *part*, *whole* and *percent*.