

# Warm-Up

## Using Equivalent Ratios to Find Percents



### Lesson Question



### Lesson Goals

Find the  of a number.

Use  ratios.



### Words to Know

Fill in this table as you work through the lesson. You may also use the glossary to help you.

	in a percent problem, the first number in a ratio
	in a percent problem, the second number in a ratio; all of something
	having the same amount, value, area, volume, or force
	a table that shows the relationship between equivalent ratios

## Warm-Up

## Using Equivalent Ratios to Find Percents

**Reviewing Equivalent Ratios**

The ratios in the **ratio table** are **equivalent**.

Find the missing value.

			$\times$ <input type="text"/>			
<b>A</b>	3	$\xrightarrow{\times 2}$ 6	12	60	75	
<b>B</b>	4	$\times$ <input type="text"/>	16	80		

$\times 25$

# Instruction

## Using Equivalent Ratios to Find Percents

Slide

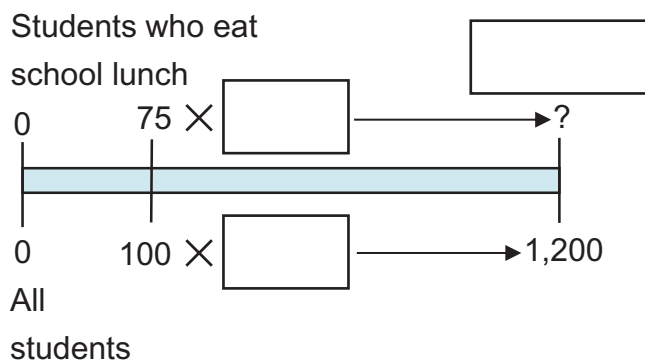
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### Using Equivalent Ratios to Find a Percent of a Number

75% of the 1,200 students at West Junior High eat a school lunch every day. Find the number of students who eat a school lunch.

$$\frac{\text{part}}{\text{whole}} = \frac{\boxed{\phantom{000}}}{100}$$

$$\frac{75}{100} = \frac{\boxed{\phantom{000}}}{1,200}$$



900 students eat a school lunch out of 1,200 students total.

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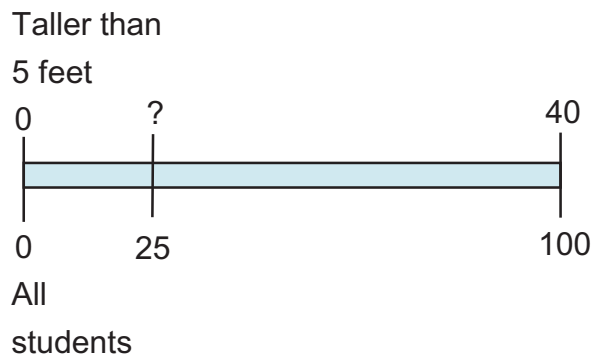
### Using Equivalent Ratios to Solve for a Part

40% of the 25 students in Hector's class are more than 5 feet tall.

Find 40% of 25.

$$\frac{\boxed{\phantom{00}}}{100} = \frac{5 \text{ ft.tall}}{\boxed{\phantom{000}}}$$

$$\frac{40 \div 4}{100 \div \boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{25}$$



$\boxed{\phantom{00}}$  of 25 =  $\boxed{\phantom{00}}$  students

## Instruction

## Using Equivalent Ratios to Find Percents

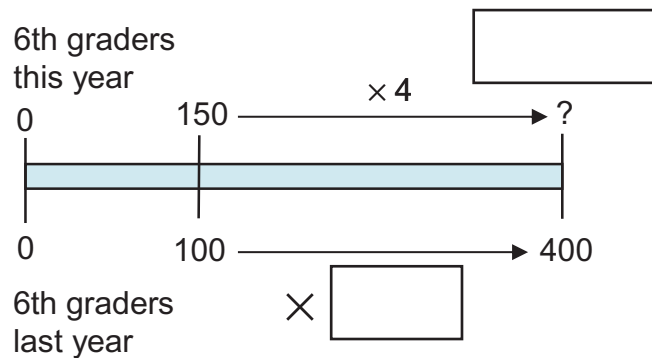
Slide

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**Solving Percents Greater Than 100%**

The number of 6th graders attending Middlefield Science Academy this year is 150% of last year's total. If 400 6th graders attended Middlefield last year, how many attend this year?

Find 150% of 400.



$$\frac{\text{Part}}{\text{Whole}} = \frac{150 \times \boxed{\phantom{000}}}{100 \times 4} = \frac{\boxed{\phantom{000}}}{400}$$

600 students attend this year.

## Instruction

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Slide

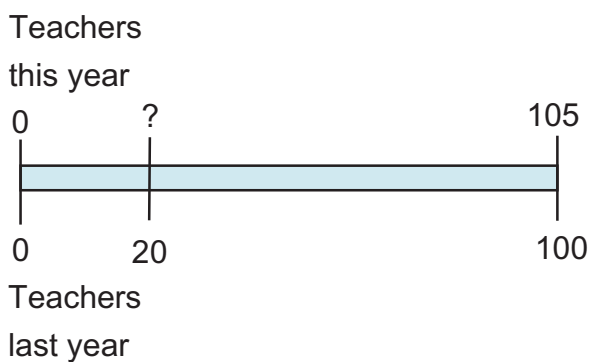
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**Using Equivalent Ratios to Solve**

The number of teachers at South Town Middle School this year is 105% of last year's total. If 20 teachers worked at South Town last year, how many teach there this year?

Find 105% of 20.

In this problem, our part is larger than our whole.



$$\div \boxed{\phantom{00}}$$

$$\frac{105}{100} = \frac{\boxed{\phantom{00}}}{20} \quad \text{part}$$

$$\div 5$$

$$105\% \text{ of } 20 = \boxed{\phantom{00}} \text{ teachers}$$

# Summary

## Using Equivalent Ratios to Find Percents



### Lesson Question

How can you use equivalent ratios to find the percent of a number?



### Answer

*Use this space to write any questions or thoughts about this lesson.*