# 10-3 Equivalent Ratios

Digital Resources

**CCSS: 6.RP.A.3:** Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

## Launch

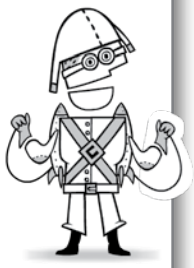
MP3, MP5

The table shows votes for a new school team name. One friend says two grades voted the same. A second friend says the total vote for team name was the same.

Use ratios to show how both friends could be correct. Which team name should the school choose? Explain.

**Votes for New Team Name**

| Grade | Wolves | Flyers |
|---|---|---|
| 6th | 20 | 10 |
| 7th | 5 | 30 |
| 8th | 30 | 15 |



**The first friend is correct because:**

**The second friend is correct because:**

**The school should choose:**

**Reflect** How can ratios use different numbers but be the same?

# Got It?

## PART 1 Got It

Use number lines to find ratios equivalent to 8 : 10. Find one ratio with lesser terms and one ratio with greater terms.

Discuss with a classmate

What does it mean to write a ratio with lesser terms?
Compare the ratios with lesser terms that you wrote. Were they the same? If not, how were they different?
Compare the ratios with greater terms that you wrote. Were they the same? If not, how were they different?

## PART 2 Got It

Write a ratio equivalent to 3 : 4.

## PART 3 Got It

Write two different ratios equivalent to 4 : 10.

# Close and Check

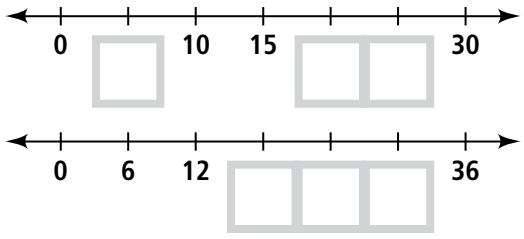
## Focus Question

MP4, MP8

What does it mean for two ratios to be equivalent? Why might you want to use an equivalent ratio?

## Do you know HOW?

**1.** Complete the equivalent ratios on the double number line.




**2.** Each marble bag has a ratio of red to blue marbles of 3 to 4. You have 12 blue marbles. Complete the table to show how many marbles you have in your bag.

**Number of Marbles**

| Red | Blue | Total |
|---|---|---|
| 3 | 4 | |
| | | |

I have ☐ marbles in my bag.

## Do you UNDERSTAND?

**3. Writing** Tell how the ratios 6 : 2 and 3 : 1 describe a similar situation among the shapes.

**4. Reasoning** The ratio of consonants to vowels for two words are shown below. Explain how you can tell that the words are not the same.

| Word One | Word Two |
|---|---|
| 3 : 1 | 9 : 4 |