By the end of this lesson you will be able to _____.

Example 1 - Classroom A has a 4 to 3 ratio of girls to boys. Classroom B has a ratio of 12 to 10. Is the situation between girls to boys in these two classrooms proportional?

What does it mean by *proportional*? _____

What two quantities are being compared in the problem?

1) Write the ratio for Classroom A   Write the ratio for Classroom B

Are the two classrooms proportional? Provide an explanation for your answer.

2) How did you use *cross-products* to help you solve this problem?
   [Show your work for solving with cross products here]

3) What equivalent ratios did you use to help you solve this problem?
   [Show your work for solving with equivalent ratios here]

What can you do?

1)

2)

3)

Example 2 - Plane A traveled _____ miles in _____ hours. Plane B traveled _____ miles in _____ hours. Is the rate between the two planes proportional?

What two quantities are being compared in the problem?

Write the ratio for Plane A   Write the ratio for Plane B   [Show your work for solving with equivalent ratios here]

Is the rate between the two planes proportional? Provide an explanation for your answer.

Example 3 - Cineplex A is offering a 5-movie pass for $_____. Cineplex B is offering an 8-movie pass for $_____. **Is the rate between the two Cineplex theatres proportional?**

What two quantities are being compared in the problem?

Write the ratio for Theatre A   Write the ratio for Theatre B
                    [Show your work for solving with cross products here]

Is the rate between the two theatres proportional? Provide an explanation for your answer.

Your Turn to Practice

Fill in the missing values given in the video. Write your answers in complete sentences.

1) Mike's bag of M&Ms had a ratio of _____ red to _____ green M&Ms. Julie's bag had a ratio of _____ red to _____ green M&Ms. Simplify the ratios in order to determine if Mike and Julie have bags with proportional amounts of red and green M&Ms.

2) Andrew made _____ baskets in _____ minutes in Tuesday's practice. On Wednesday he made _____ baskets in _____ minutes. Use cross products to determine if Andrew able to keep his rate the same.

3) A pumpkin spice cookie recipe for a dozen cookies calls for _____ cups of flour. Gretel is making _____ cookies for her classmates. She decides to use _____ cups of flour. Use equivalent ratios to determine if she is keeping the same proportion of number of cookies to cups of flour.