

Name _____ date _____ period _____

Comparing Number Lines – Ratios and Proportions

The green number line represents percent and should be set at 25%. If not, move the green ball to the left or right to represent 25%.

The blue number line represents a ratio. Use the blue slider and ball to help you solve the following problem.

1. A small bag of m&m's contains 25 pieces of candy. You take five pieces from the bag.
 - a. Is what you took greater than, less than, or exactly ($>$, $<$, $=$) 25%?

b. In the space below, sketch the green and blue number lines.

c. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

d. Now show your work to mathematically prove if the ratios are equivalent.

Do not change the green and blue settings

The red number line represents a large bag of m&ms. Use the red slider and ball to help you solve the following problem.

1. A large bag of m&m's contains 200 pieces of candy. You remove 40 pieces from the bag.
 - a. In the space below, sketch the blue and red number lines.

b. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

c. Now show your work to mathematically prove if the ratios are equivalent.

Name _____ date _____ period _____

The green number line represents percent. Set it at 65%

Use the blue slider and ball to help you solve the following problem.

1. Mrs. Grable's math students are forever borrowing pencils. She started year with 150 and on the last day of school she discovered she gave away 96 pencils..
 - a. Did Mrs. Grable give away an amount that was greater than, less than, or exactly ($>$, $<$, $=$) 65%?

 - b. In the space below, sketch the green and blue number lines.

 - c. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

 - d. Now show your work to mathematically prove if the ratios are equivalent.

Do not change the green and blue settings.

The red number line represents Mr. Fender's supply of pencils. Use the red slider and ball to help you solve the following problem.

1. Mr. Fender started the year with 200 and gave away 130.
 - a. In the space below, sketch the blue and red number lines.

 - b. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

 - c. Now show your work to mathematically prove if the ratios are equivalent.

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Comparing Number Lines – Ratios and Proportions Your turn!

Make up one real world problem on your own. Use the format below as a guide. Show your work as you have previously done.

The green number line represents percent and should be set at ____%. If not, move the green ball to the left or right to represent ____%.

The blue number line represents a ratio. Use the blue slider and ball to help you solve the following problem.

1. Write your problem below:

a. Is what you took greater than, less than, or exactly ($>$, $<$, $=$) ____%?

b. In the space below, sketch the green and blue number lines.

c. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

d. Now show your work to mathematically prove if the ratios are equivalent.

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Name _____ date _____ period _____

Do not change the green and blue settings.

The red number line represents _____. Use the red slider and ball to help you solve the following problem.

1. Write your problem below

a. Is this ratio equivalent to _____?

b. In the space below, sketch the blue and red number lines.

c. Represent this comparison as ratios in fractional form. Write your comparison in the space below.

d. Now show your work to mathematically prove if the ratios are equivalent.