Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class:\_\_\_\_\_\_\_

Learning Target: I can write and simplify the ratios.

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A ***ratio*** is an ordered pair of numbers, denoted as either *a* : *b*, *a* to *b* or  and read as a comparison of *a* to *b*.

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The three ways to write a ratio is:

1. Using a colon :
2. Using the word “to”
3. Using a fraction line



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Generally, ratios relate values in one of three types: *part-to-part, part-to-whole,* or *whole-to-part.* *a* to *b* represent the parts in the situation. *a* + *b* = *c*, and c represents the total in the situation.

 part-to-part *a* : *b* or *b* : *a* In the other notation,  or .

 part-to-whole *a* : *c* or *b* : *c* In the other notation,  or .

 whole-to-part *c* : *a* or *c* : *b* In the other notation,  or .



Examples.

 1. In a school with 420 students and 35 teachers:

 (a) What is the ratio of students to teachers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (b) What is the ratio of teachers to students? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (c) Which type of a ratio did you use for each of the above? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. A school had 180 boys and 240 girls attending.

 (a) What is the ratio of boys to girls? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (b) What is the ratio of girls to boys? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (c) Which type of ratio was used for a & b? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (d) What is the ratio of students to boys? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (e) Which type of ratio was used for d? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (f) What is the ratio of girls to students? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (g) Which type of ratio was used for f? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. A recipe calls for 2 parts sugar, 5 parts flour, and 3 parts milk.

 (a) What is the ratio of sugar to flour to milk? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (b) What is the ratio of sugar to the whole recipe? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_