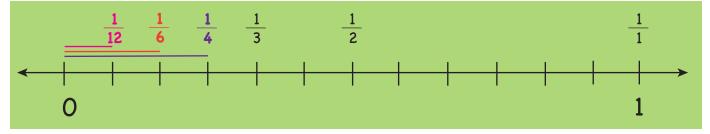
The Size of Unit Fraction and the Number in the Denominator

Example



Step 1: Add zero and one to the number line above. Measure a distance of 12 spaces between them.

Step 2: Mark off each of the 12 spaces between zero and one.

Step 3: In the left hand column of the chart, list the unit fractions in order from 1/1 to 1/12.

Step 4: Determine the length of the line segment that would go with each of the unit fractions.

Step 5: Locate and label some or all of the unit fractions on the number line.

Step 6: Describe what happens to the length of the unit fraction as the number in the denominator gets larger.

Unit Fractions	Length
one over one	12 spaces
one-half	6 spaces
one-third	4 spaces
one-fourth	3 spaces
one-fifth	2.4 spaces
one-sixth	2 spaces
one-seventh	1.7 spaces
one-eighth	1.5 spaces
one-ninth	1.3 spaces
one-tenth	1.2 spaces
one-eleventh	1.1 spaces
one-twelfth	1 space

As the number in the denominator gets larger, the unit fraction gets smaller.

When there are more people on the dance floor, each person has less space in which to move.

When more line segments are needed to cover the distance between zero and one, each line segment has to be shorter in order to ensure all of them fit.

Half an hour is longer than a quarter of an hour.

The Size of Unit Fraction and the Number in the Denominator

name:

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Step 1: Add zero and one to the number line above. Measure a distance of spaces between them.	Unit Fractions	Length
Step 2: Mark off each of the spaces between zero and one.		
Step 3: In the left hand column of the chart, list the unit fractions in order from 1/1 to 1/		
Step 4: Determine the length of line segment that would go with each of the unit fractions.		
Step 5: Locate and label some or all of the unit fractions on the number line.		
Step 6: Describe what happens to the size of the unit fraction as the number in the denominator gets larger.		

The Size of Unit Fraction and the Number in the Denominator Teacher Tips

Remind your students that numbers farther to the right on a number line are larger numbers. Help them see that if the length of the line between zero and one is a multiple of the denominator, that unit fraction will be easier to place.

Encourage students to think about the reason behind this relationship.

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Unit Fractions	Length

When calculating the length of the unit fractions, notice that dividing by the number in the denominator is just like multiplying by the unit fraction. You may want to revisit this activity when teaching multiplication with fractions.

Have some graph paper handy in case some of your students want to plot the results on a graph. Have them imagine what the line might look like before they start. Bring their attention to the distances between the lengths of unit fractions. Notice that the differences between the lengths get smaller as the denominators get larger and the unit fractions get shorter.