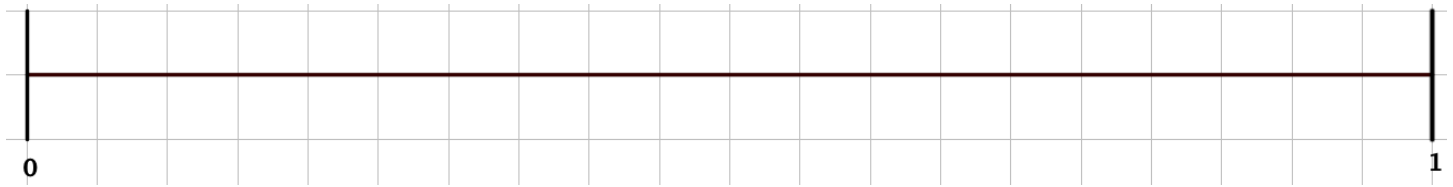
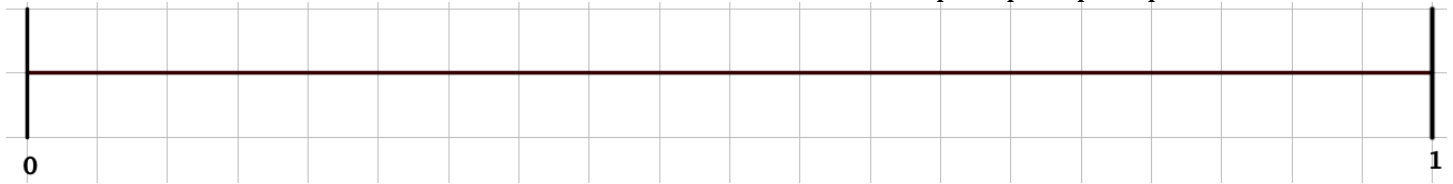


Grade 11 1.2 Equivalent Fractions, Multiplying Fractions

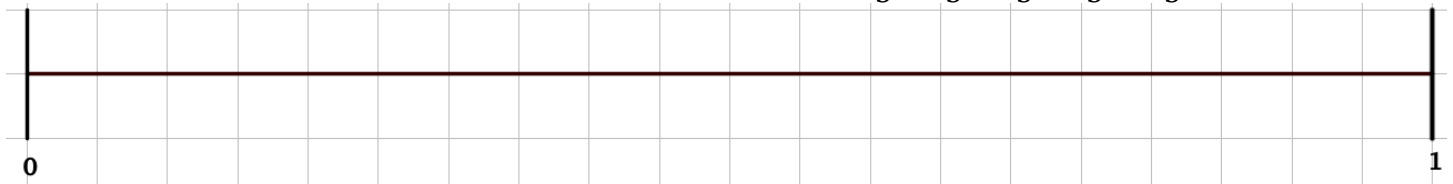
A unit can be represented by a dollar, a pizza, a piece of string. Anything that there can be more of or less of. Here, we are going to take a line segment to represent the number one.



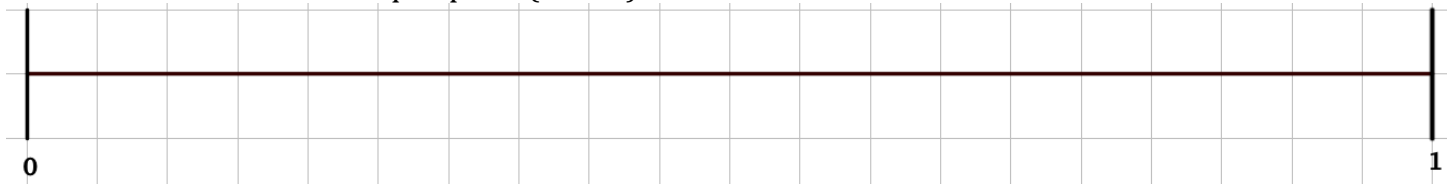
1. Divide this unit into four equal parts (quarters) and label them $\frac{1}{4}; \frac{2}{4}; \frac{3}{4}; \frac{4}{4}$



2. Divide this unit into five equal parts (fifths) and label them $\frac{1}{5}; \frac{2}{5}; \frac{3}{5}; \frac{4}{5}; \frac{5}{5}$

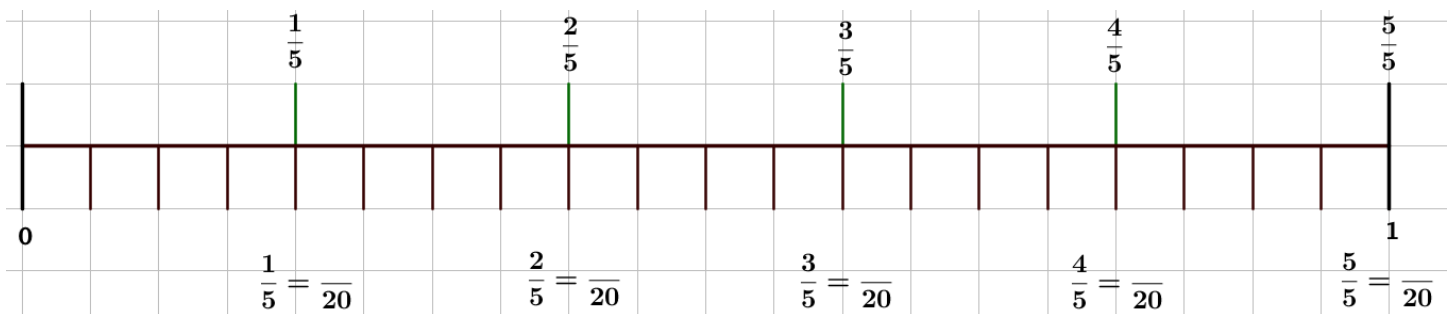


3. Divide this unit into ten equal parts (tenths) and label them.



4. The following number line has been divided into twenty parts (below) and five parts (above). Notice that

$$\frac{1}{5} = \frac{4}{20}$$



Complete the equivalent fractions.

Pancakes: Multiplying Fractions

Here's my pancake recipe. It makes enough pancakes for two adults and two small kids.

2 cups	Flour
3 teaspoons	Baking powder
1 teaspoon	Baking Soda
$\frac{1}{2}$ teaspoon	Salt
2 tablespoons	Sugar
$1\frac{3}{4}$ cups	Milk
3 tablespoons	Butter, melted
1	Egg

When the grandparents come over for breakfast, I need to make a little more – about half as much again.

I need to multiply this recipe by one and a half.

Now, $1\frac{1}{2} = \frac{3}{2}$

(We just converted a *mixed fraction* to an *improper fraction*)

We need to multiply all the quantities by $\frac{3}{2}$, then simplify the answer.

2 cups	$2 \times \frac{3}{2} = \frac{2}{1} \times \frac{3}{2} = \frac{6}{2} =$	Flour
3 teaspoons		Baking powder
1 teaspoon		Baking Soda
$\frac{1}{2}$ teaspoon		Salt
2 tablespoons		Sugar
$1\frac{3}{4}$ cups		Milk
3 tablespoons		Butter, melted
1		Egg