Finding Fraction Equivalents for Metric Measurements

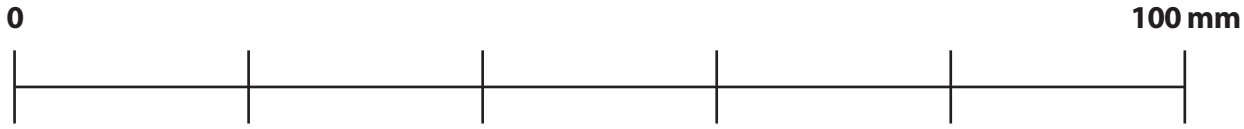
Name: _____ Date: _____

How might you find a fraction equivalent for a metric measurement? Using a number line, here's how we can find out!

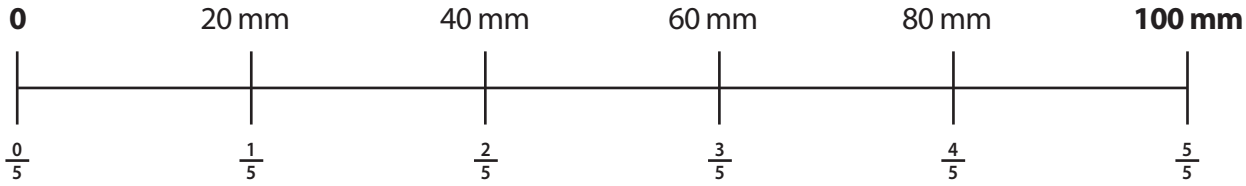
Consider the fraction $\frac{1}{5}$ and the question: what is $\frac{1}{5}$ of 100 mm? Follow these steps:

Step 1) Draw an open number line for 100 mm.

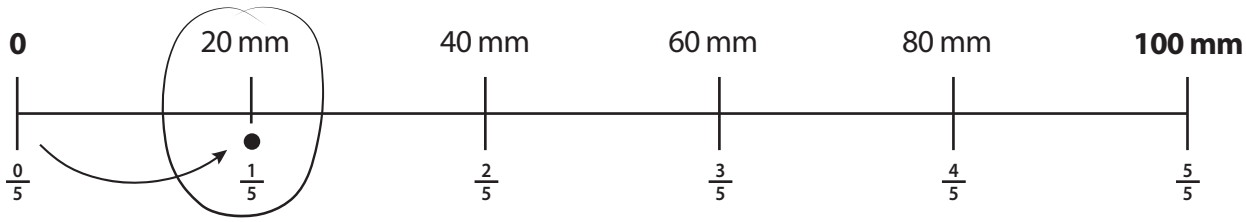
Step 2) Look to the fraction's denominator see how many partitions (equal groups) are needed for the number line. In this case the number is five, so the number line needs five equal partitions ending at 100mm.



Step 3) Fill in the partition values by dividing 100 mm by five, and label the number line accordingly.



Step 4) By moving $\frac{1}{5}$ of the way down the number line, observe 20 mm is equivalent to $\frac{1}{5}$ of 100 mm.



Exercises:

Directions: Use the four-step process listed above to find equivalent measurements for the following metric measurements:

1) What is $\frac{1}{2}$ of 100 mm?
2) What is $\frac{3}{4}$ of 100 mm?
3) What is $\frac{4}{25}$ of 100 mm?
4) What is $\frac{3}{10}$ of 100 mm?

Looking Closer: Corresponding points, 20 mm and $\frac{1}{5}$ are called equivalent, as they represent the same point on a number line, we can think of them as an equivalent pair. When looking at all 5 partitions, can you name the remaining equivalent pairs?