Coreq Support for Section 1.7

# Topic 1: Writing Sets Using Set-Builder and Interval Notation

There are two types of notations we can use to describe a certain set of numbers, **set-builder notation** and **interval notation**.

For example, suppose we want to describe the set of all real numbers less than $10$. Using set-builder notation, we write this set as $\{x|x<10\}$. The graph below shows how we can represent this set on a number line.



The open circle at $10$ represents that $10$ is not included in the set. The interval that describes this set is called an open infinite interval and is written as $(-\infty ,10)$ when written in interval notation.