

Precalculus
Lesson – Interval Notation
Mrs. Snow, Instructor

An interval is the set of all numbers between two endpoints such as 3 and 5. In **interval notation** the symbols [and] are used to include an endpoint in the interval and the symbols (and) are used to exclude an endpoint from an interval.

EXAMPLE

$-5 < x \leq 3$ $(-5, 3]$	
$x > 6$ $(6, \infty)$	

Use interval notation to represent each set of numbers:

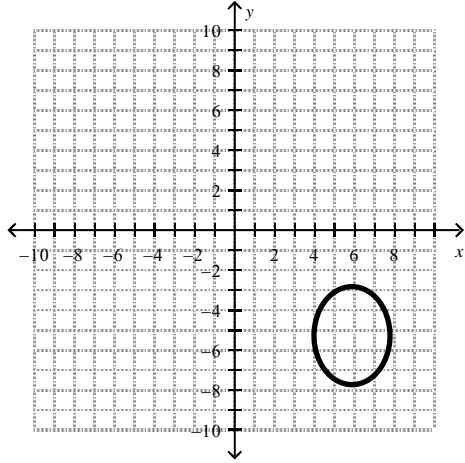
<p>A</p>	<p>B</p>
<p>C</p>	<p>D</p>
<p>E</p>	<p>F</p>

For each set of numbers, (a) graph the set on a number line, and (b) write the set in interval notation.

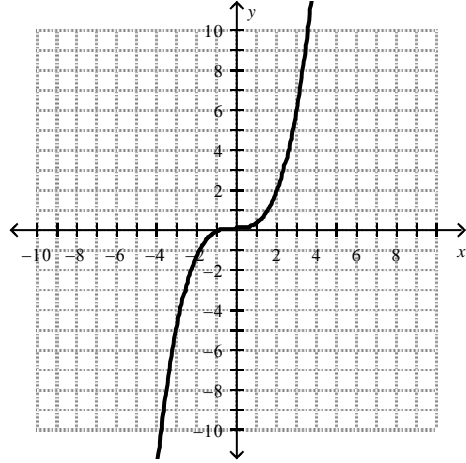
<p>A</p> $x < 6$	<p>B</p> $-11 < x \leq 23$
<p>C</p> $-9 \leq x \leq -2 \text{ or } x \geq 0$	<p>D</p> $x < 5 \text{ or } x \geq 17$
<p>E</p> $x \neq -3$	<p>F</p> $x \neq 8 \text{ and } x \geq -2$

Name the domain and range of each relation using interval notation.

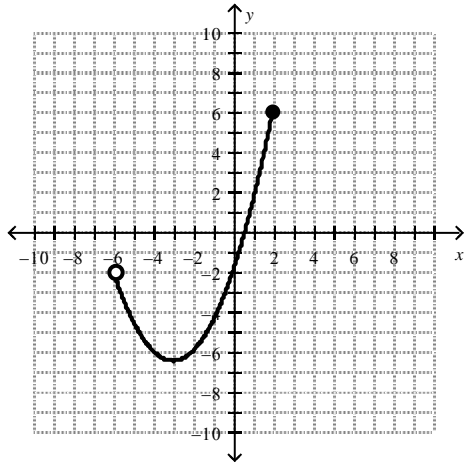
A



B



C



D

