2.5

Date:
Objective**:**

Sketch the following functions without using a graphing calculator. Then find the listed key features of each function.

1. $f(x) = |x| - 3$ Parent function:_____ **Transformations**:

Parent

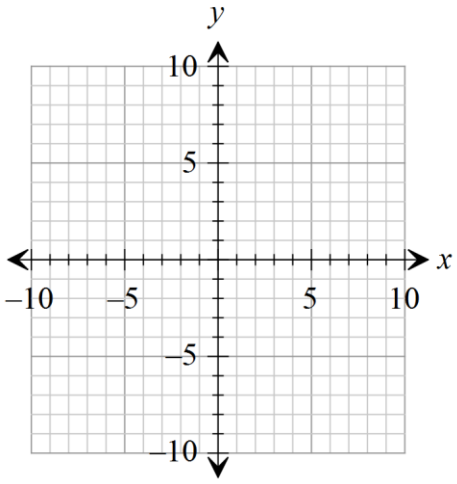
x	$f(x)$

Reflections/ Stretches/ Compressions

x	$f(x)$

Translations (Shifts)

x	$f(x)$



Increasing Interval: Decreasing Interval: Domain: Range:

2. $f(x) = -(x+4)^3$ Parent function:_____ **Transformations**:

Parent

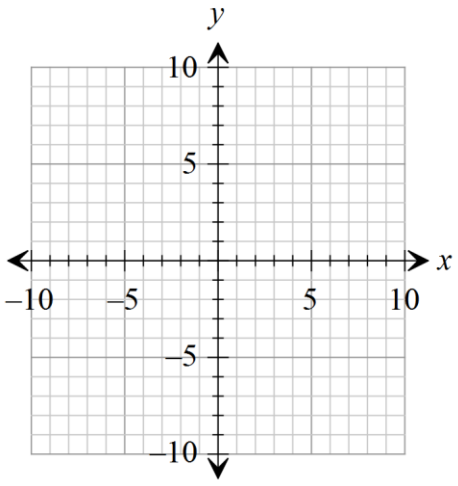
x	$f(x)$

Reflections/ Stretches/ Compressions

x	$f(x)$

Translations (Shifts)

x	$f(x)$



Positive Interval: Negative Interval: Domain: Range:

3. $f(x) = 2(x-3)^2 - 2$ Parent function:_____ **Transformations**:

Parent

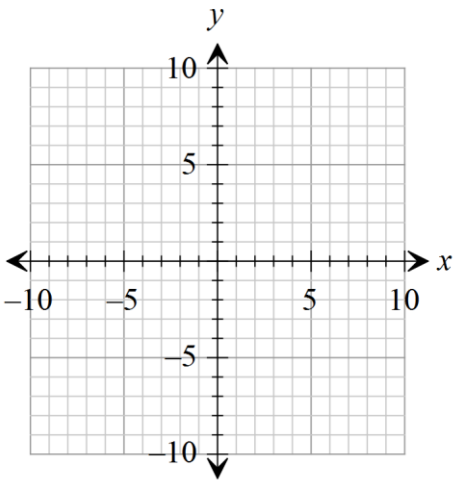
x	$f(x)$

Reflections/ Stretches/ Compressions

x	$f(x)$

Translations (Shifts)

x	$f(x)$



What are the x −intercept(s)? What is the y −intercept? Domain: Range:

Circle: Maximum or Minimum Max/Min Point:

4. $f(x) = -\sqrt[3]{x+2} + 5$ Parent function:_____ **Transformations**:

Parent

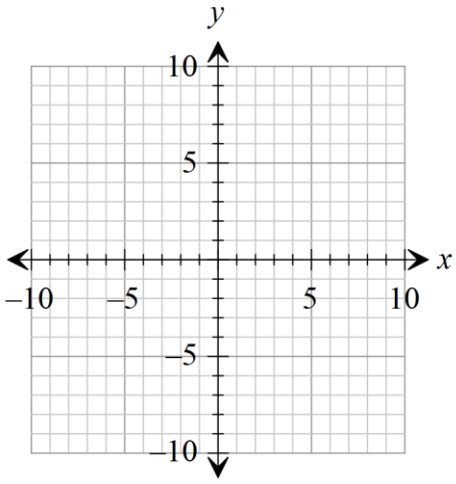
x	$f(x)$

Reflections/ Stretches/ Compressions

x	$f(x)$

Translations (Shifts)

x	$f(x)$



Is the function increasing on the entire domain? Domain: Range:

Is the function positive on the entire domain?