Name: _____ **Class:** _____ **Date:** _____ **ID: A**

04-01 Sample Quiz - Graphs of Radical Functions

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. The function g(x) is a **translation** **2 units right** and **5 units up** of $f(x) = \sqrt[3]{x}$. Which of the following represents g(x)?

a. $g(x) = \sqrt[3]{x-2} + 5$

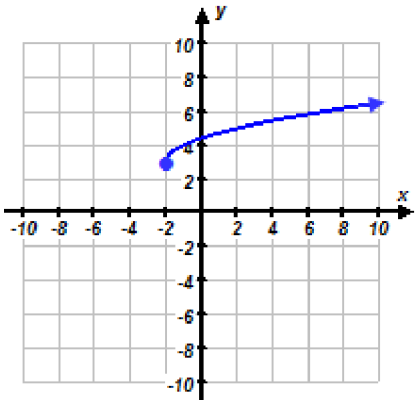
b. $g(x) = 2\sqrt[3]{x} + 5$

c. $g(x) = \sqrt[3]{x+5} + 2$

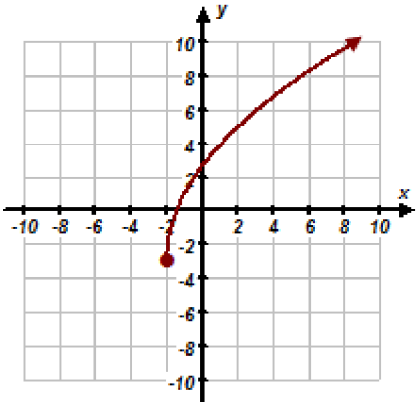
d. $g(x) = \sqrt[3]{x+2} - 5$

____ 2. Which is the graph of the function $f(x) = 4\sqrt{x-2} - 3$?

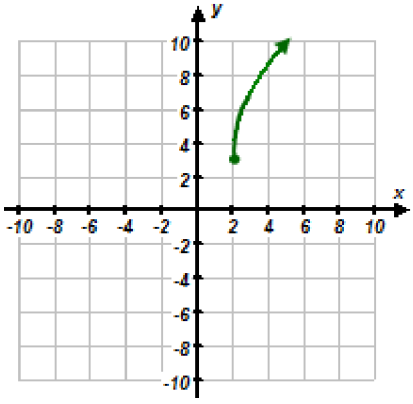
a.



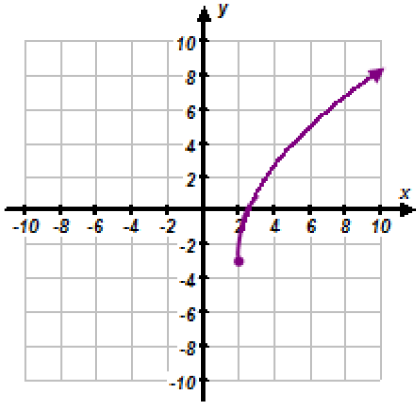
c.



b.



d.



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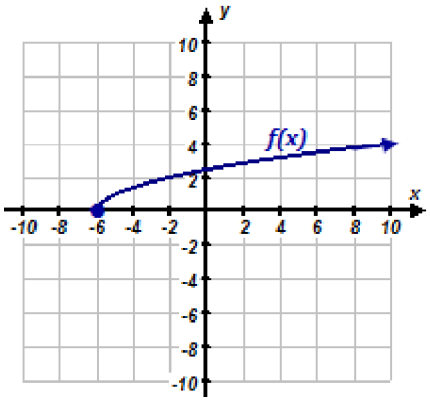
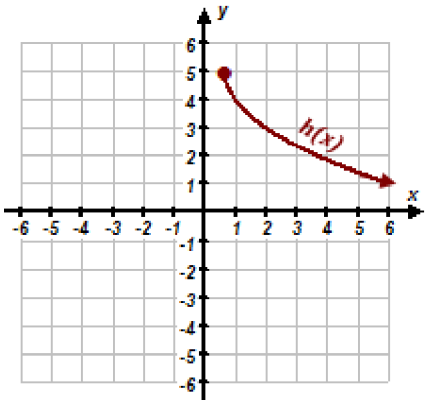
____ 3. What is the **domain** of the function $f(x) = \sqrt{x+6}$ in set notation?



a. $x \le -6$
b. $x \ge -6$
c. $x \ge 0$
d. $x \le 0$

____ 4. What is the **range** of the function $h(x) = -\sqrt{3x-2} + 5$ in interval notation?



a. $(-\infty, \infty)$
b. $\left[\frac{2}{3}, \infty\right)$
c. $[5, \infty)$
d. $(-\infty, 5]$

____ 5. What is the **domain** and **range** of the function, $m(x) = \sqrt{x+2} - 3$?

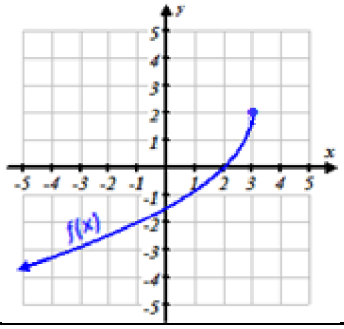
a. domain: All Reall Numbers $\{\mathbb{R}\}$
range: All Real Numbers $\{\mathbb{R}\}$

b. domain: $x \ge 2$
range: $y \ge -3$

c. domain: $x \ge -3$
range: $y \ge 2$

d. domain: $x \ge -2$
range: $y \ge -3$

____ 6. Consider the following two functions.

Function #1 ***f(x)***	**Function #2** ***g(x)***
	$g(x) = \sqrt[3]{x+1} + 2$

Which comparison of the two functions is the most accurate?

a. Both functions have an **x- intercept** of $x = 2$
b. Both functions are **decreasing** as $x \to -\infty$
c. Both Functions have a **Domain** and **Range** of all real numbers.
d. Both functions have an **absolute maximum** of $y = 2$.