

Algebra 2 6-7-6.8 Worksheet

Name: _____

Date: _____ Hour: _____

1. Find the inverse of the functions and state whether or not the inverse is a function.

a. $f(x) = 2x - 3$

$$f(x) = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

$$f(x)^{-1} = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

Is $f^{-1}(x)$ a function? _____

b. $f(x) = x^2 - 4$

$$f(x) = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

$$f(x)^{-1} = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

Is $f^{-1}(x)$ a function? _____

c. $f(x) = \sqrt{x+5}$

$$f(x) = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

$$f(x)^{-1} = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

Is $f^{-1}(x)$ a function? _____

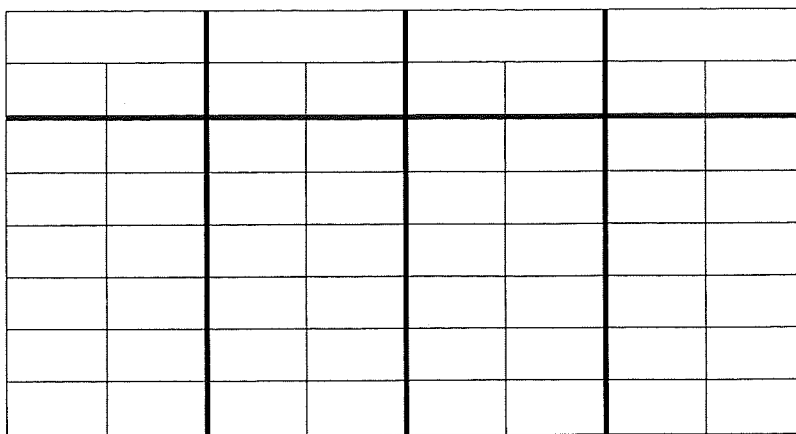
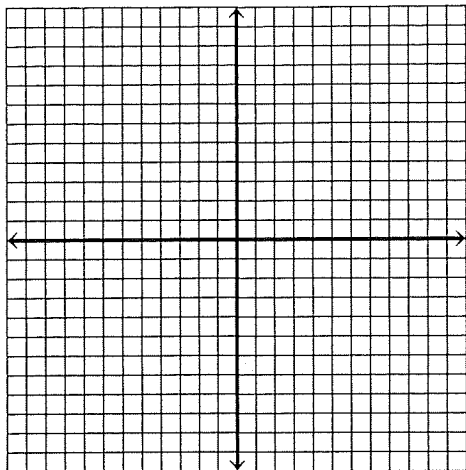
d. $f(x) = (x+3)^2$

$$f(x) = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

$$f(x)^{-1} = \begin{cases} D: \underline{\hspace{2cm}} \\ R: \underline{\hspace{2cm}} \end{cases}$$

Is $f^{-1}(x)$ a function? _____

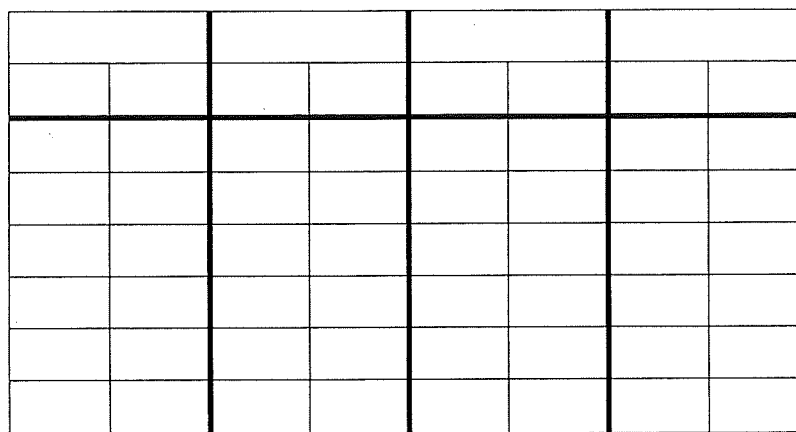
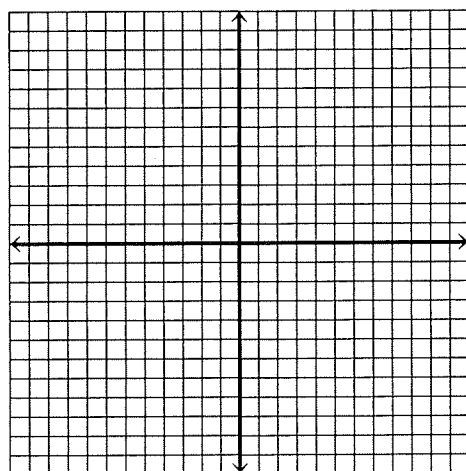
4. $f(x) = -\sqrt[3]{x-2} + 3$



Domain:

Range:

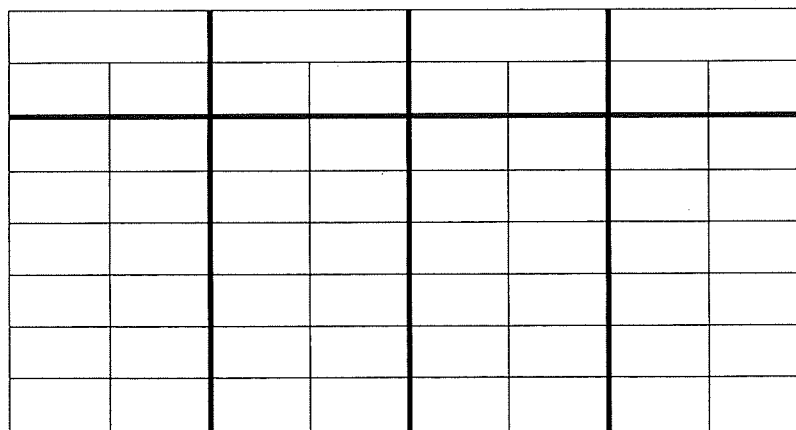
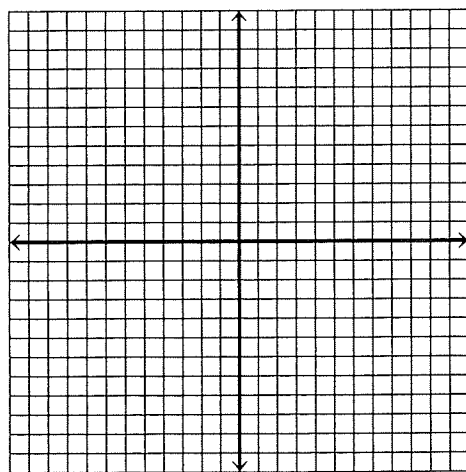
5. $f(x) = 2\sqrt[3]{x+1} - 5$



Domain:

Range:

6. $f(x) = 2\sqrt[3]{x+3} - 4$



Domain:

Range:

Rewrite each function to make it easy to graph using transformations of its parent function. Describe the graph.

7. $y = \sqrt[3]{8x+32} - 2$

7. _____

