Name _____   Date _____

Graphing Square and Cube Roots - Guided Lesson Explanation

Explanation#1

We find the plotting points of the given inequality equation.

The given equation is $f(x) = \sqrt{x+2} + 3$

In the above equation, we take $f(x)$ as y, we get

$\sqrt{x+2} - y+3 = 0$

We are going to find out the plotting points for given equation. In the first step, we are going to change equation in the form of $y = mx+c$, we get the following term

$\sqrt{x+2} + 3 = y$

$y = \sqrt{x+2} + 3$

In the above equation, we put x = -2, we get

$y = \sqrt{-2+2} + 3$

$y = 3$

In the above equation. We put x = -3, we get

$y = \sqrt{-3+2} + 3$

$y = 2$

In the above equation, we put x = 2 we get

$y = \sqrt{2+2} + 3$

$y = 5$

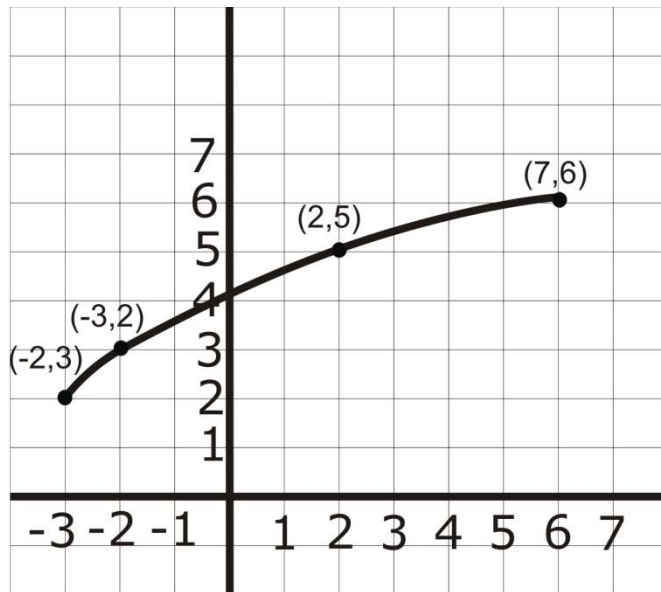In the above equation, we put x =7, we get

$y = \sqrt{7+2} + 3$

$y = 6$

From equation (1), we get the following values,

x	-2	-3	2	7
y	3	2	5	6

Explanation#2

$y = \pm\sqrt{x - h} + k$ is the inverse of $y = (x - h)^2 + k$

$Y = \sqrt{x+1} + 1$

Answer is: $y = \sqrt{x+1} + 1$

Explanation#3

We find the plotting points of the given inequality equation. The given equation is $f(x) = \sqrt{x-2} + 2$

In the above equation, we take $f(x)$ as y, we get

$\sqrt{x-2} - y + 2 = 0$

We are going to find out the plotting points for given equation. In the first step, we are going to change equation in the form of $y = mx + c$, we get the following term

$\sqrt{x-2} + 2 = y$

$y = \sqrt{x-2} + 2$

In the above equation, we put $x = 2$, we get

$y = \sqrt{2-2} + 2$

$y = 2$

In the above equation. We put $x = 3$, we get

$y = \sqrt{3-2} + 2$

$y = 3$

In the above equation, we put x = 6, we get

$y = \sqrt{6-2} + 2$

$y = 4$

From equation (1), we get the following values,

x	2	3	6
y	2	3	4