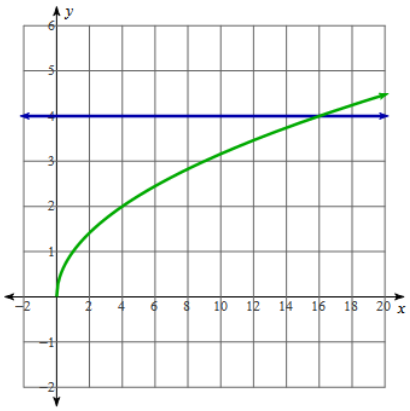
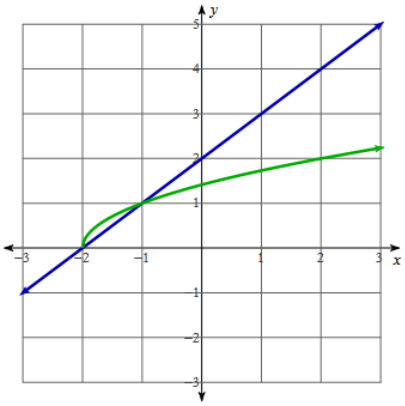
7.3 Practice A: Solving radical equations and equations with radical exponents

1. Find the solution and Explain how to use this graph to solve each equation.

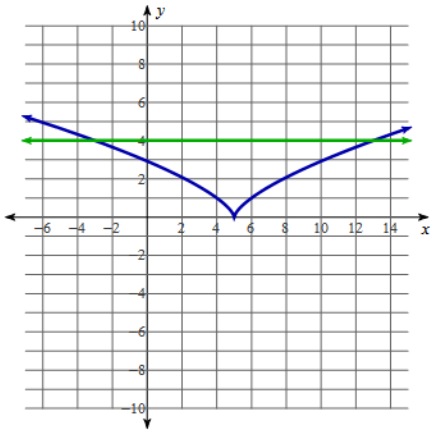
a) $4 = \sqrt{x}$



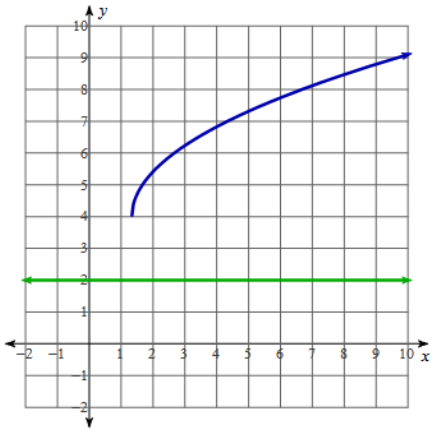
b) $(x+2)^{\frac{1}{2}} = x + 2$



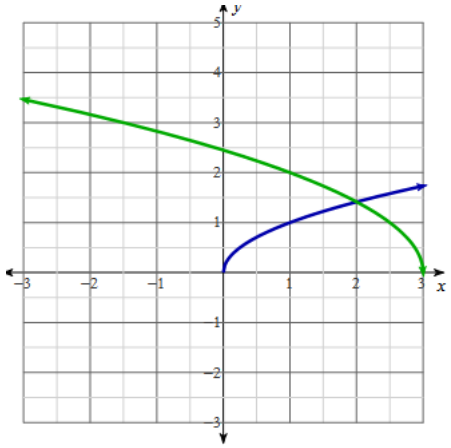
c) $(x-5)^{\frac{2}{3}} = 4$



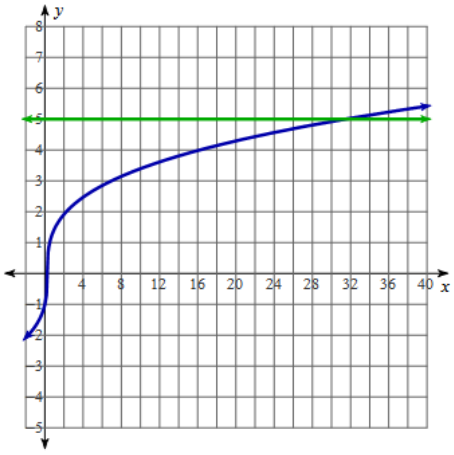
d) $\sqrt{3x-4} + 4 = 2$



e) $\sqrt{x} = \sqrt{6-2x}$



f) $\sqrt[3]{4x-1} = 5$



2. Use the graphing calculator or algebra to find the solution to each equation.

a. $\sqrt{x} = \sqrt{2x - 6}$

b) $216 = (18x)^{\frac{3}{2}}$

c) $x = \sqrt{7x - 5}$

d) $\sqrt{3x - 7} = \sqrt{x - 2}$

e) $x = (2 - x)^{\frac{1}{2}}$

f) $(5 + 2x)^{\frac{2}{3}} = 9$

g) $\frac{1}{2}x = \sqrt{5x - 9}$

h) $(x + 2)^{\frac{5}{2}} = -1$

i) $\sqrt[3]{12 + x} = -3$