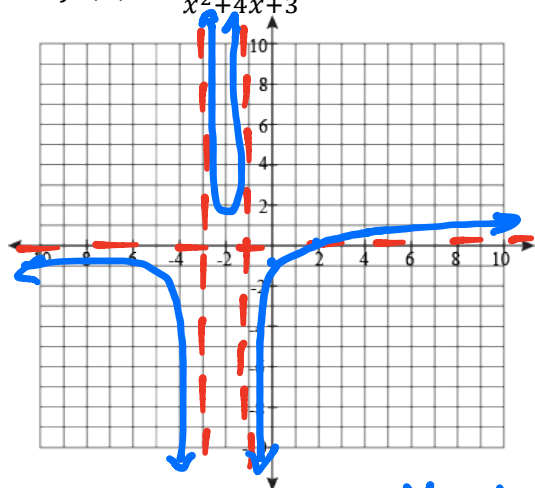


Find the vertical asymptotes, horizontal asymptotes, slant asymptotes, x-intercepts and, y-intercepts. Then sketch the graph.

1. $f(x) = \frac{x-2}{x^2+4x+3}$



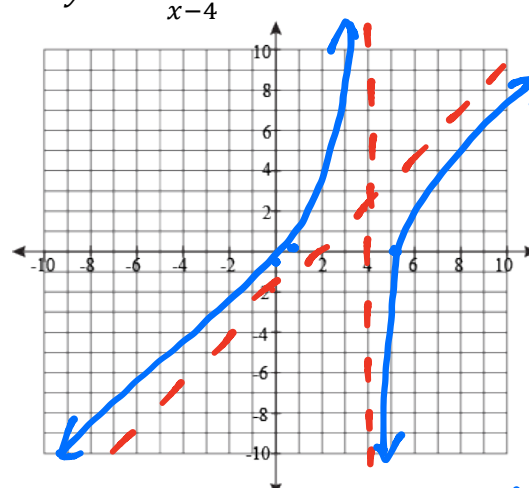
Vertical Asymptote(s): $x = -1$ $x = -3$

Horizontal/Slant Asymptote(s): $y = 0$

x-intercept(s): $(2, 0)$

y-intercept(s): $(0, -\frac{2}{3})$

2. $y = \frac{x^2-6x+5}{x-4}$



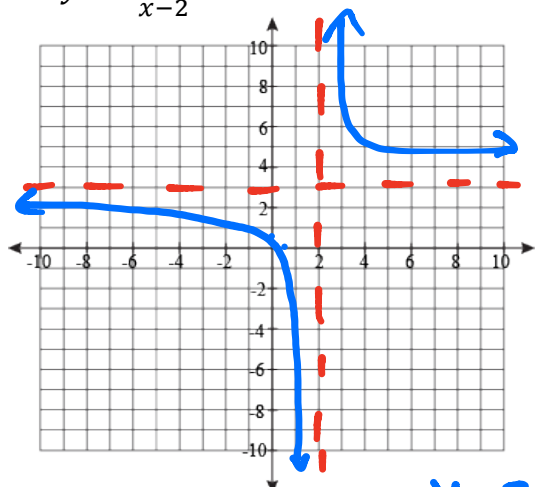
Vertical Asymptote(s): $x = 4$

Horizontal/Slant Asymptote(s): $y = x - 2$

x-intercept(s): $(1, 0)$ $(5, 0)$

y-intercept(s): $(0, -\frac{5}{4})$

3. $y = \frac{3x-1}{x-2}$



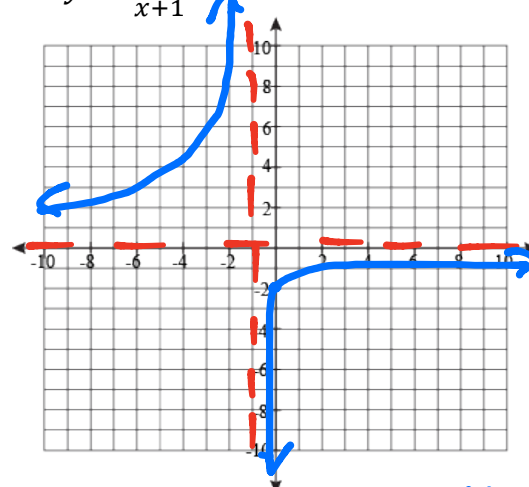
Vertical Asymptote(s): $x = 2$

Horizontal/Slant Asymptote(s): $y = 3$

x-intercept(s): $(\frac{1}{3}, 0)$

y-intercept(s): $(0, \frac{1}{2})$

4. $y = \frac{-2}{x+1}$



Vertical Asymptote(s): $x = -1$

Horizontal/Slant Asymptote(s): $y = 0$

x-intercept(s): DNE

y-intercept(s): $(0, -2)$

State the domain of the function.

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

Domain: $[5, \infty)$

6. $g(x) = \sqrt[3]{x+7}$

Domain: $(-\infty, \infty)$

7. $g(x) = -2\sqrt[3]{x} + 9$

Domain: $(-\infty, \infty)$

8. $f(x) = \sqrt{x-1} + 3$

Domain: $[1, \infty)$

Write the radical equation given the following.

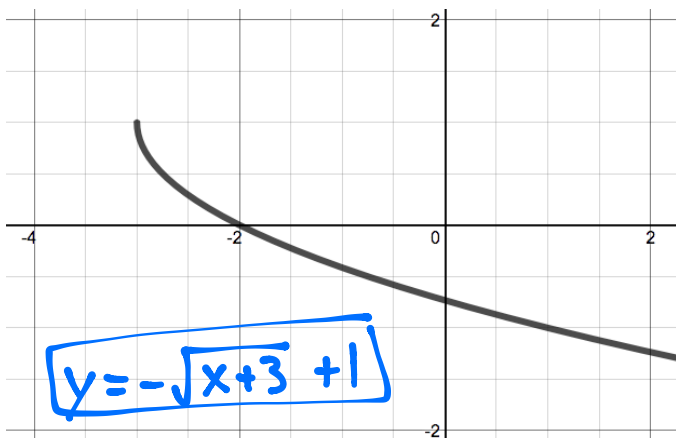
9. What is the equation of a square root function that is shifted 13 units down and 2 units to the right?

$f(x) = \underline{\sqrt{x-2} - 13}$

10. What is the equation of a cube root function that is shifted 9 units up and 7 units to the right?

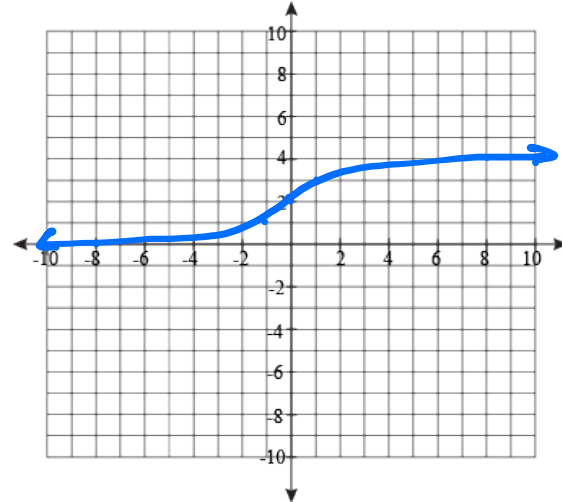
$f(x) = \underline{\sqrt[3]{x-7} + 9}$

11. Write the radical equation from the graph.

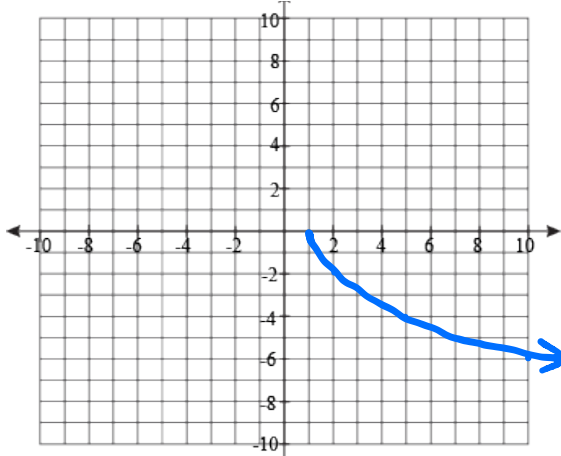


(12-14) Graph the Radical Functions.

12. $k(x) = \sqrt[3]{x} + 2$



9. $h(x) = -2\sqrt{x-1}$



10. $k(x) = \sqrt[3]{x+3}$

