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

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


Horizontal/Slant Asymptote(s):
x-intercept(s): $\qquad$
y -intercept(s):
3. $y=\frac{3 x-1}{x-2}$


Vertical Asymptote(s):
Horizontal/Slant Asymptote(s):
$x$-intercept(s): $\qquad$
$y$-intercept(s):
2. $y=\frac{x^{2}-6 x+5}{x-4}$


Vertical Asymptote(s): $\qquad$
Horizontal/Slant Asymptote(s)
x-intercept(s):
y -intercept(s):
4. $y=\frac{-2}{x+1}$


Vertical Asymptote(s):
Horizontal/Slant Asymptote(s):
x-intercept(s):
$y$-intercept(s):

State the domain of the function.
5. $f(x)=\sqrt{x-5}$
6. $g(x)=\sqrt[3]{x+7}$

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

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

Domain: $\qquad$
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?

$$
\begin{aligned}
& f(x)= \\
& \hline \begin{array}{l}
\text { 11. Write the radical equation from the } \\
\text { graph. }
\end{array}
\end{aligned}
$$


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

10. What is the equation of a cube root function that is shifted 9 units up and 7 units to the right?
$f(x)=$ $\qquad$
(12-14) Graph the Radical Functions.
12. $k(x)=\sqrt[3]{x}+2$

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


