Answers to Chapter 5 Practice Test

1) Vertical Asym.: $x = 3$
Holes: None
Horz. Asym.: $y = -\frac{1}{4}$

2) Vertical Asym.: $x = 4$
Holes: $x = 2$
Horz. Asym.: $y = 0$

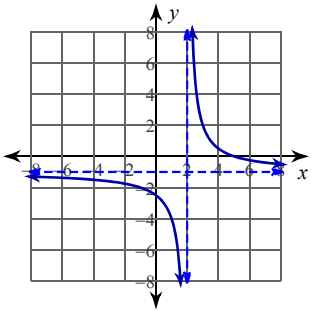
3) Vertical Asym.: $x = 0$
Holes: None
Horz. Asym.: $y = 1$

4) Vertical Asym.: $x = -2$
Holes: None
Horz. Asym.: $y = 2$

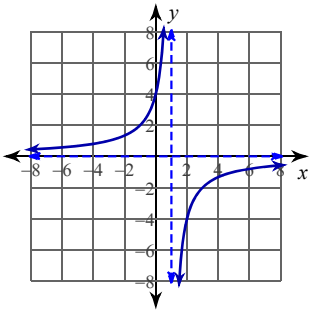
5) Vertical Asym.: $x = 2$
Holes: None
Horz. Asym.: $y = -1$

6) Vertical Asym.: $x = 1$
Holes: None
Horz. Asym.: $y = 3$

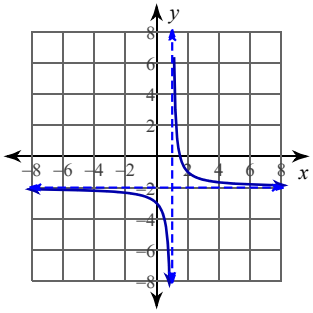
7)



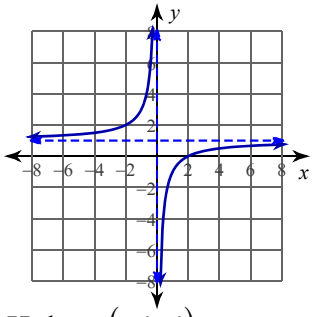
8)



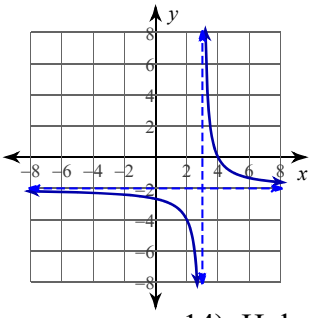
9)



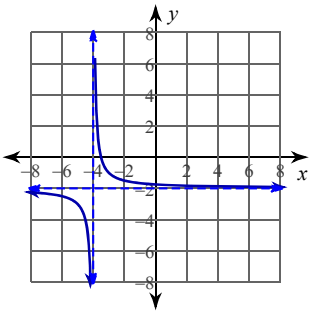
10)



11)

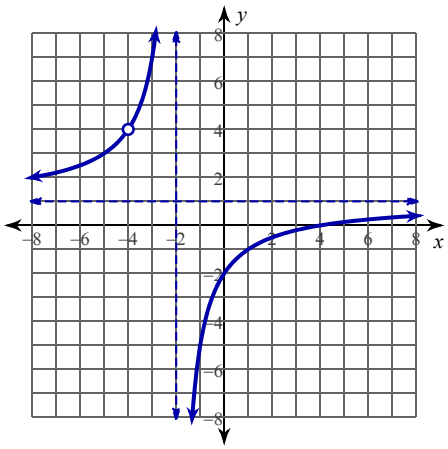


12)



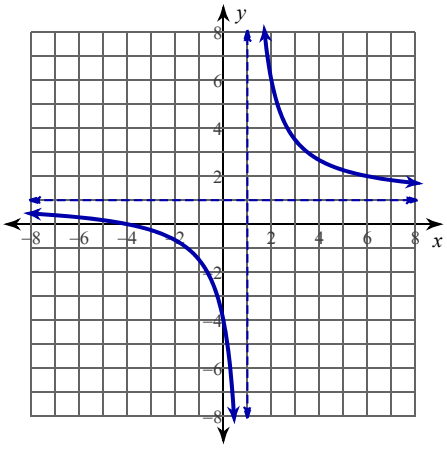
13) Hole at $(-4, 4)$

St, Form: $f(x) = -\frac{6}{x+2} + 1$



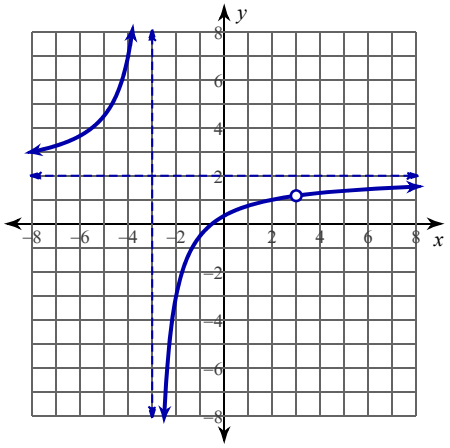
14) Hole: None

St Form: $g(x) = \frac{5}{x-1} + 1$



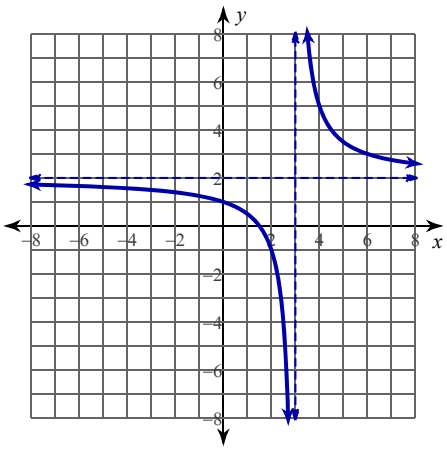
15) Hole: $\left(3, \frac{7}{6}\right)$

St Form: $f(x) = -\frac{5}{x+3} + 2$



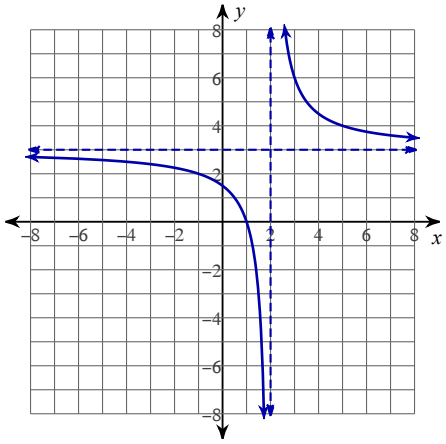
16) Hole: none

St Form: $h(x) = \frac{3}{x-3} + 2$

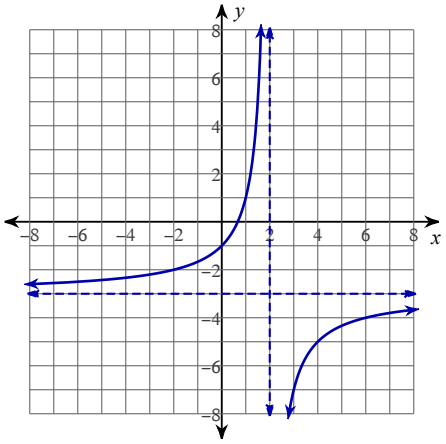


Write the equation for each graph in standard form $y = \frac{a}{x-h} + k$. Then describe the vertical asymptote and end behvior using limit notation.

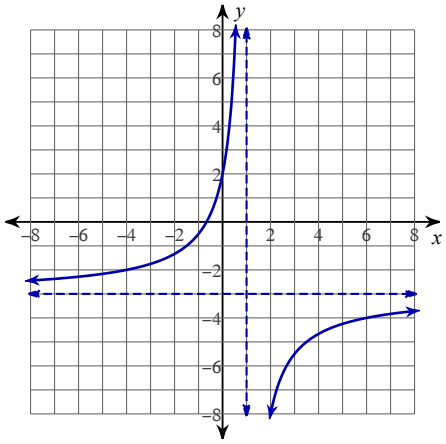
17) $y = \frac{3}{x-2} + 3$



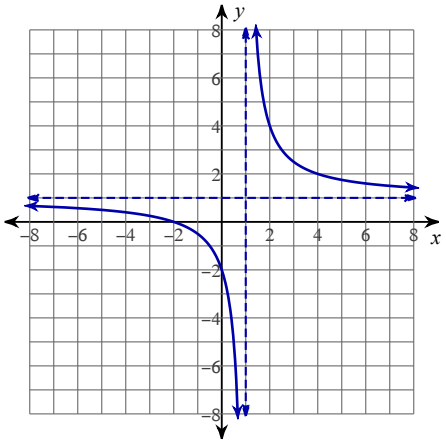
18) $y = -\frac{4}{x-2} - 3$



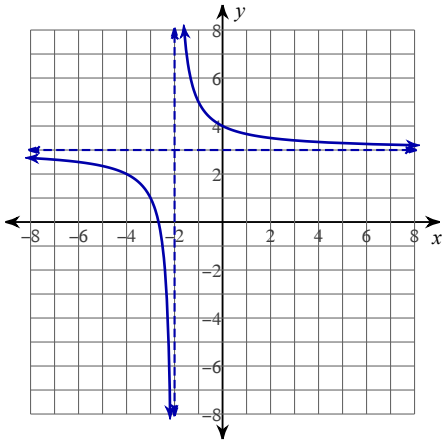
19) $y = -\frac{5}{x-1} - 2$



20) $y = \frac{3}{x-1} + 1$



21) $y = \frac{3}{x+2} + 3$



22) $y = -\frac{2}{x+3} + 4$