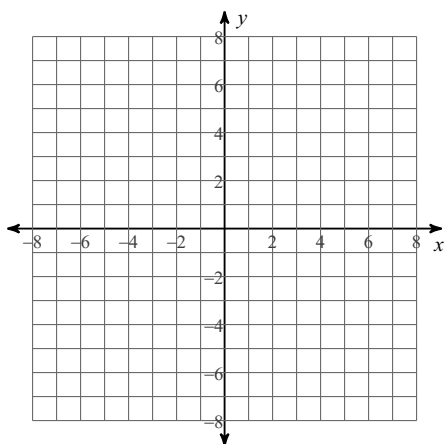


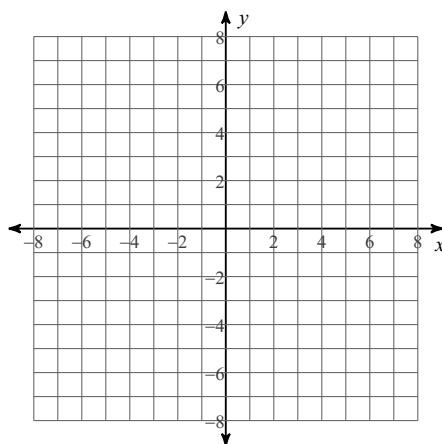
Test Review

Graph each function.

1) $f(x) = -\frac{1}{x+1} + 1$

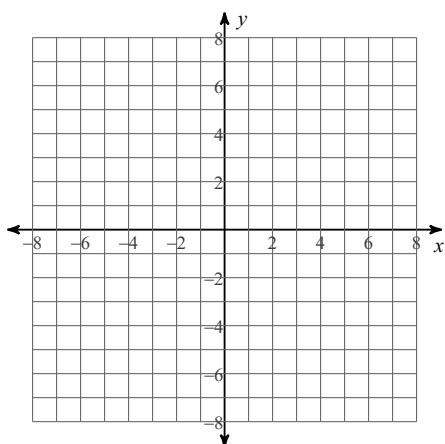


2) $f(x) = -\frac{4}{x+1} + 1$

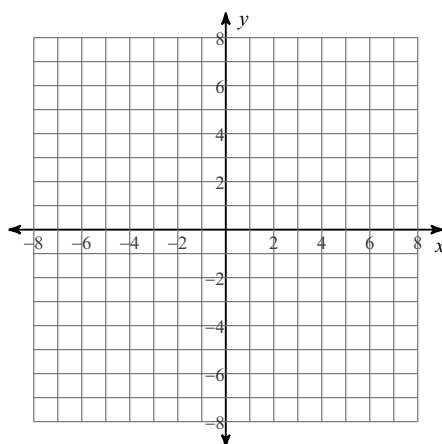


Using a separate sheet of paper, identify the holes, vertical asymptotes, x-intercepts, horizontal asymptote, and domain of each. Then sketch the graph.

3) $f(x) = \frac{1}{3x+12}$



4) $f(x) = \frac{x^2 + 7x + 12}{4x^2 + 24x + 32}$



Write the equation of the rational function, provided the following information.

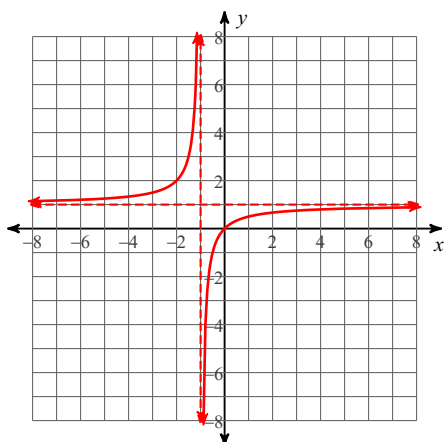
- 5) VA: $x = 2$ and $x = -3$
 Hole: at $x = 4$
 HA: $y = 7$
 x-intercept: at $(5, 0)$

- 6) VA: $x = 0$ and $x = 6$
 Hole: none
 HA: $y = 0$
 x-intercept: at $(-3, 0)$

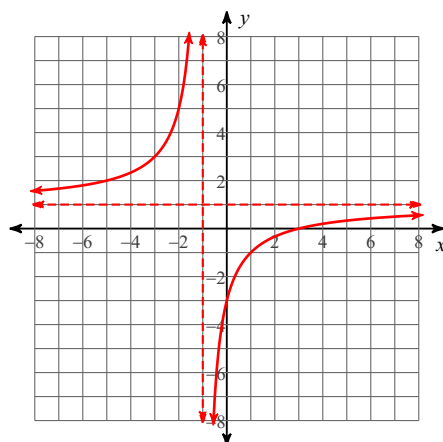
Test Review

Graph each function.

1) $f(x) = -\frac{1}{x+1} + 1$

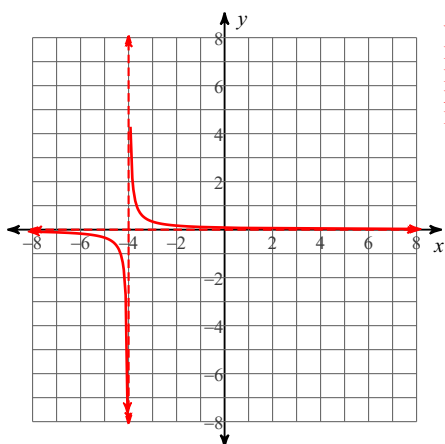


2) $f(x) = -\frac{4}{x+1} + 1$



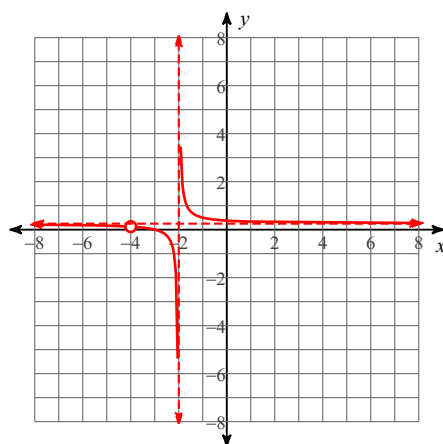
Using a separate sheet of paper, identify the holes, vertical asymptotes, x-intercepts, horizontal asymptote, and domain of each. Then sketch the graph.

3) $f(x) = \frac{1}{3x+12}$



Vertical Asym.: $x = -4$
 Holes: None
 Horz. Asym.: $y = 0$
 X-intercepts: None
 Domain:
 All reals except -4

4) $f(x) = \frac{x^2 + 7x + 12}{4x^2 + 24x + 32}$



Vertical Asym.: $x = -2$
 Holes: $x = -4$
 Horz. Asym.: $y = \frac{1}{4}$
 X-intercepts: -3
 Domain:
 All reals except $-2, -4$

Write the equation of the rational function, provided the following information.

- 5) VA: $x = 2$ and $x = -3$
 Hole: at $x = 4$
 HA: $y = 7$
 x-intercept: at $(5, 0)$

- 6) VA: $x = 0$ and $x = 6$
 Hole: none
 HA: $y = 0$
 x-intercept: at $(-3, 0)$