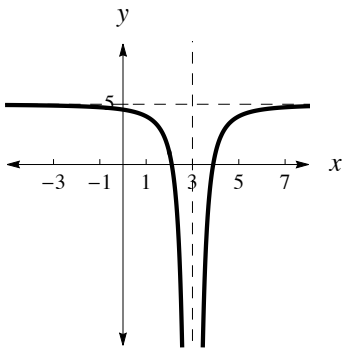
Quiz 2: Version A

First & Last Name: _____ **Class:** _____

1. State the *domain* of the following function.

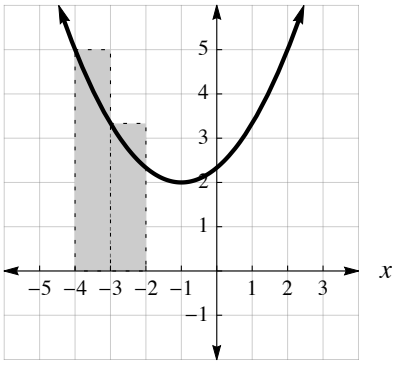


2. Sketch a graph of a function with *asymptotes*

$y = 3$ and $x = -2$

3. Approximate the area between the parabola (shown below) and the x-axis for $-4 \le x \le 1$ using *left-hand rectangles* with widths of 1. Two rectangles have been drawn for you.

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



Challenge (required for Honors)

4. Simplify $f(x) = \frac{x^2 - 8x + 16}{x - 4}$

5. Where does $f(x)$ in the previous question have a hole or asymptote? Is it a hole or an asymptote? Explain.