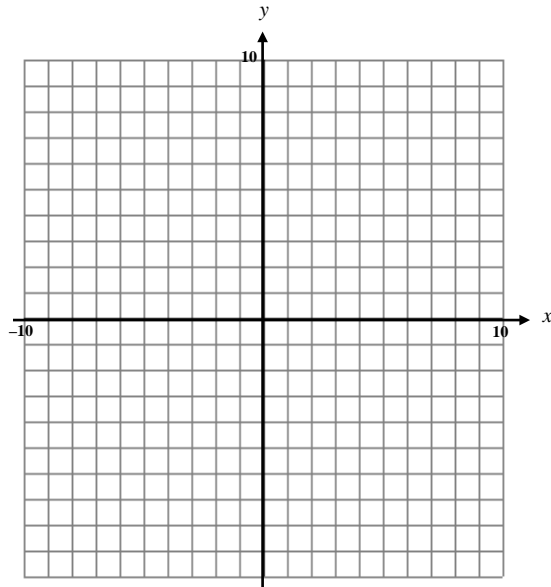


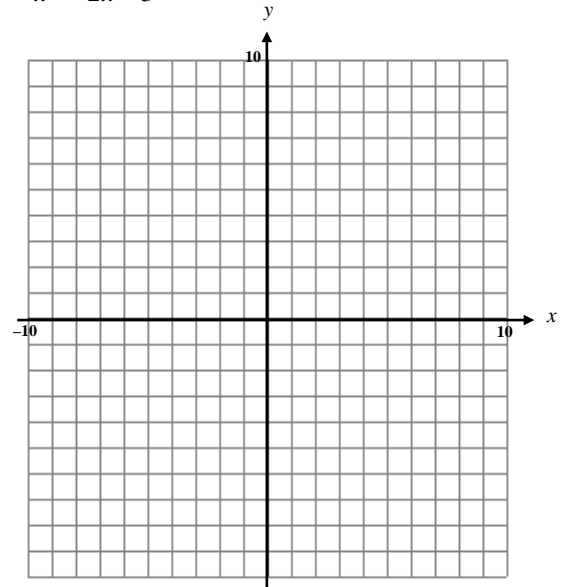
For each function find the following (if they exist).

- a. All asymptotes (vertical, horizontal, and slant) ... **BE SURE TO WRITE THEM AS AN EQUATION**
- b. Holes
- c. Intercepts ( $x$  and  $y$ )
- d. Sketch the graph without a calculator. Identify at least 3 plotted points per region

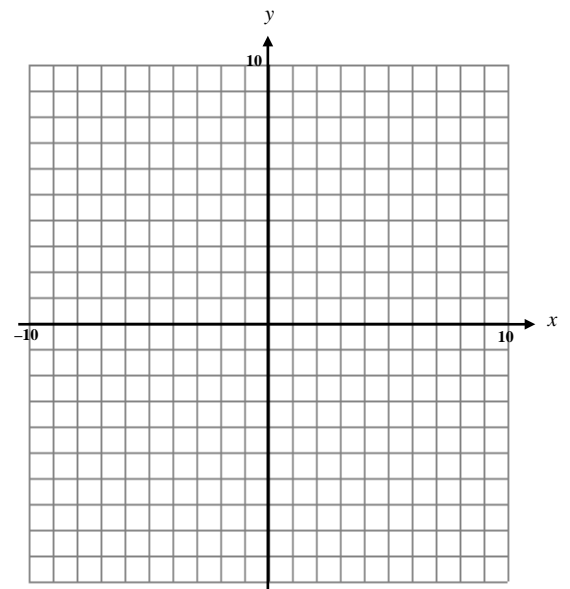
1.  $f(x) = \frac{x+5}{x-1}$



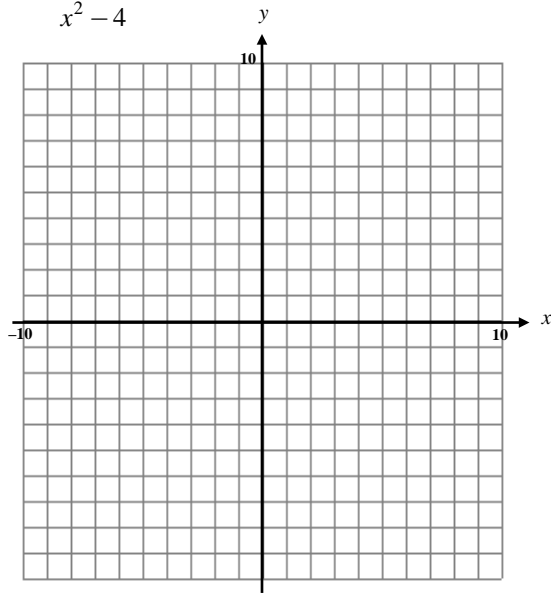
2.  $f(x) = \frac{-2}{x^2 - 2x - 3}$



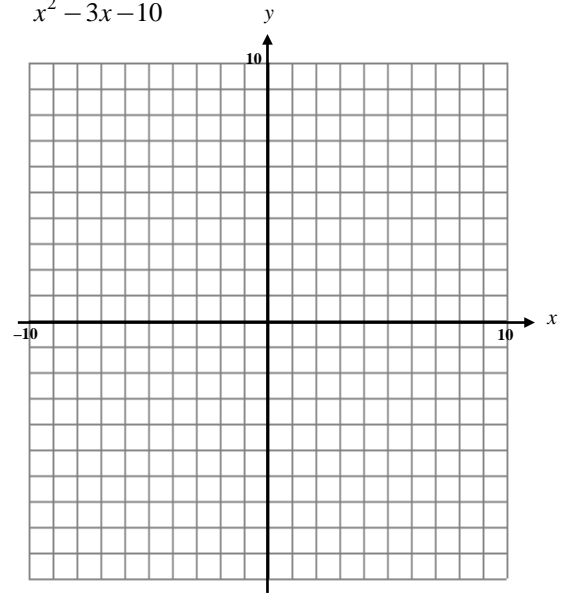
3.  $f(x) = \frac{x^2 - x - 2}{x+1}$



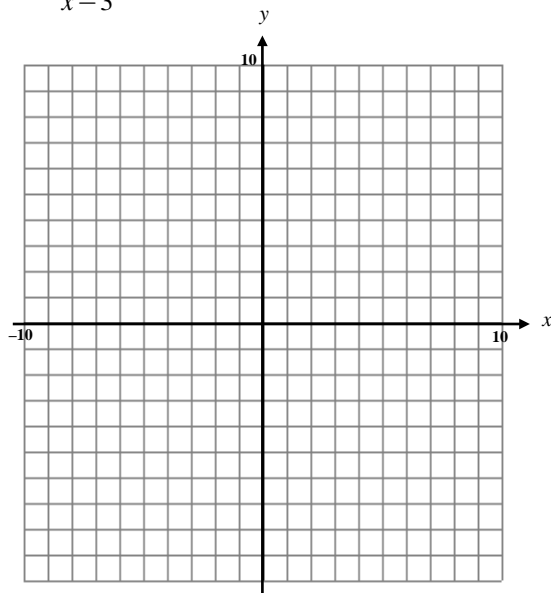
4.  $f(x) = \frac{3x^2 - 5x - 2}{x^2 - 4}$



5.  $f(x) = \frac{x+1}{x^2 - 3x - 10}$



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



7.  $f(x) = \frac{2x^2 + 5x + 3}{x^2 - 9}$

