1. (25 points each) Find the $x$, $y$-intercepts and (horizontal and vertical) asymptotes, and then sketch a graph of the given rational function. (You might want to use a graphing device to confirm your answer.)

(a) $r(x) = \frac{2x + 6}{-6x + 3}$

(b) $r(x) = \frac{2x - 4}{x^2 + x - 2}$

(c) $r(x) = \frac{4x^2}{x^2 - 2x - 3}$

(d) $r(x) = \frac{2x^2 + 2x - 4}{x^2 + x}$