

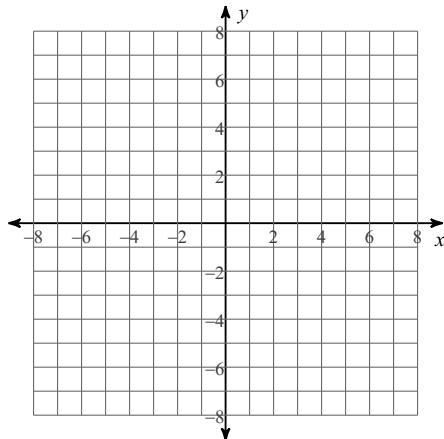
## Unit 7 REVIEW Graphing Rational Functions

For each of the following, state the horizontal asymptote(s), vertical asymptote(s) and hole(s).

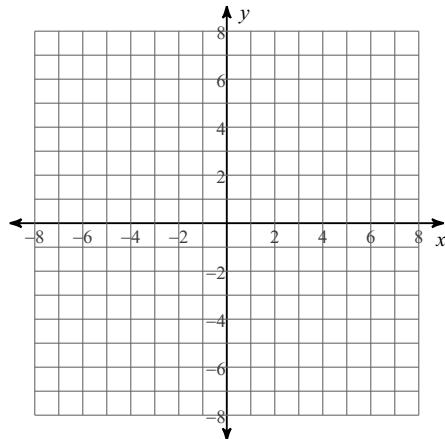
Then graph the function using a graphing calculator, graph the asymptotes with dotted lines and the holes with open circles.

State the domain and range.

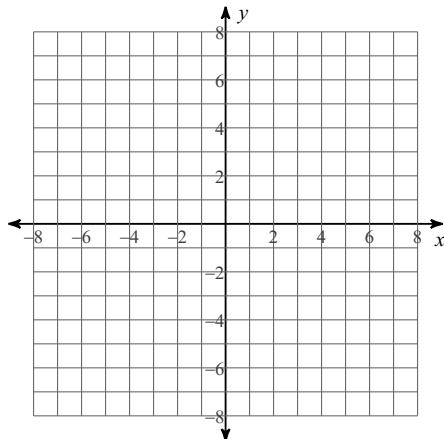
1)  $f(x) = \frac{4}{x}$



2)  $f(x) = \frac{2x^2 - 18}{x^2 - 3x}$



3)  $f(x) = \frac{x^3 - x^2 - 12x}{-3x^2 + 9x}$



4)  $f(x) = \frac{x^2 + x - 2}{4x + 12}$

