

### 7.3 Graphing Rational Equations

**Graph each using a graphing calculator.**

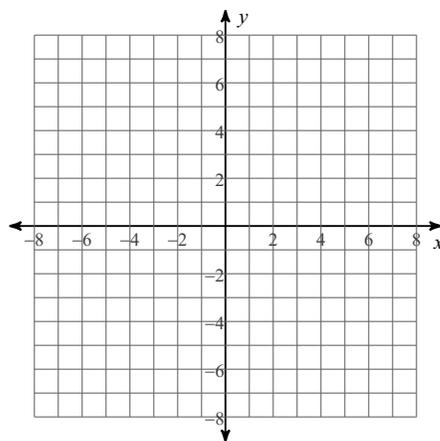
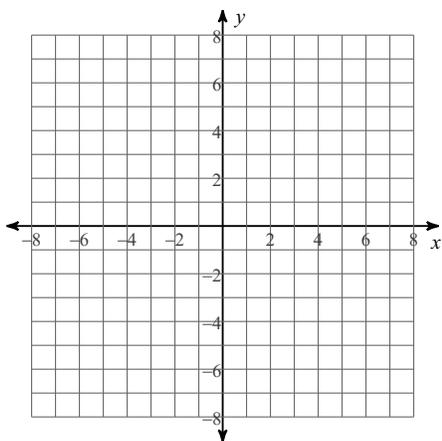
**Graph horizontal and vertical asymptotes using a dotted line.**

**Graph holes with an open circle.**

**State the domain and range.**

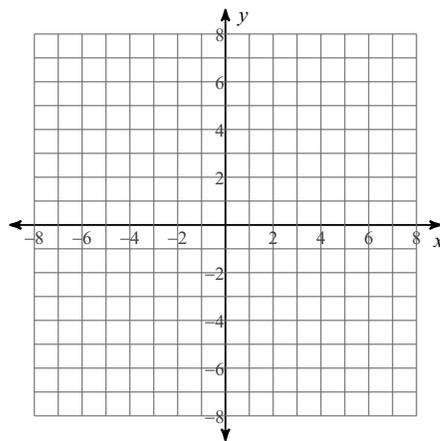
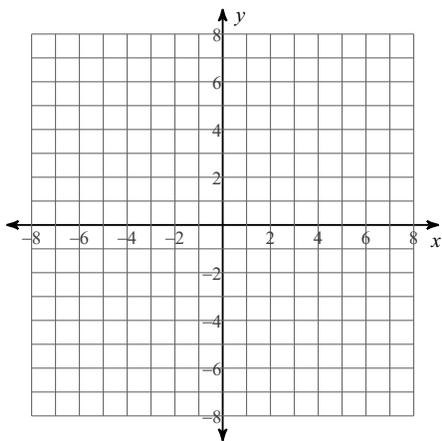
1)  $f(x) = \frac{4}{x-1}$

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

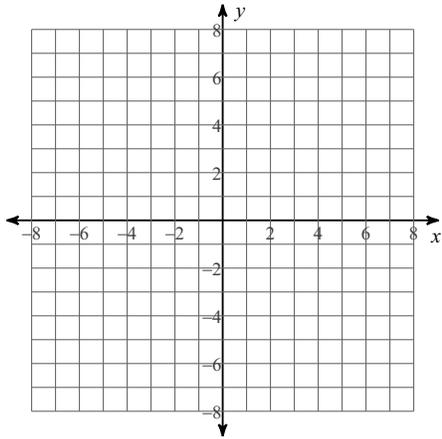


3)  $f(x) = \frac{2}{x+2} + 2$

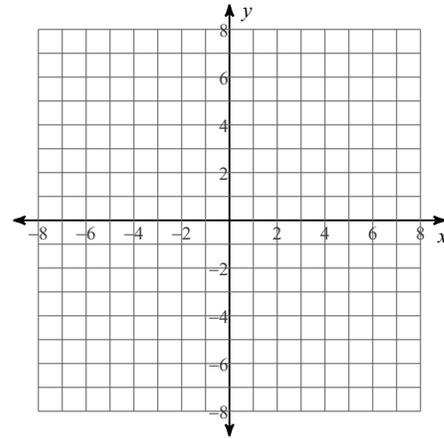
4)  $f(x) = \frac{x^2 - 5x + 6}{4x - 4}$



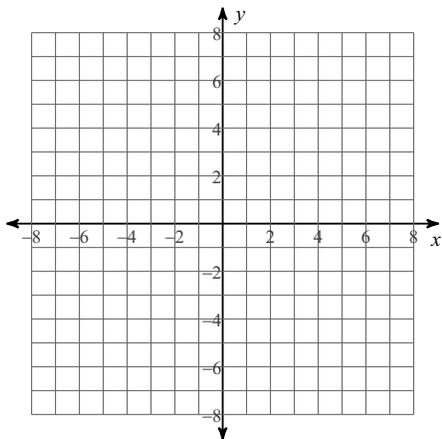
$$5) f(x) = \frac{x^2 + 4x + 3}{x^2 - 2x - 3}$$



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



$$7) f(x) = \frac{x^3 - 5x^2 + 6x}{3x^3 - 12x}$$



$$8) f(x) = \frac{x^2 - 3x - 4}{-2x^2 + 4x + 16}$$

