

1. Write the partial fraction decomposition of each rational expression.

a) $\frac{x-3}{(x+2)(x+1)^2}$

b) $\frac{x^2-11x-18}{x^3+3x^2+3x}$

2. Identify the graph of each conic. Then solve the system to find the intersection.

a) $\begin{cases} x^2 - 4y^2 = 16 \\ 2y - x = 2 \end{cases}$

b) $\begin{cases} x^3 - 2x^2 + y^2 + 3y - 4 = 0 \\ x - 2 + \frac{y^2 - y}{x^2} = 0 \end{cases}$

3. Use your calculator to solve the system by graphing. Round solution to two decimal places.

$$\begin{cases} x^3 + y^2 = 4 \\ x^2 y = 4 \end{cases}$$