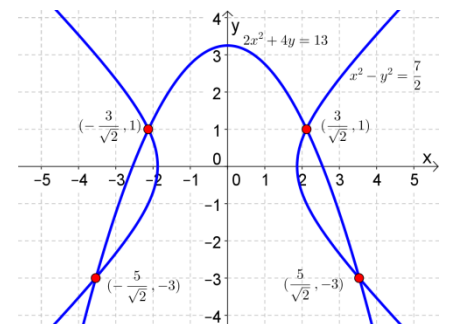


1. Find all solutions of the system. (Hint: you should get 4 solutions.)

$$\begin{cases} 2x^2 + 4y = 13 \\ x^2 - y^2 = \frac{7}{2} \end{cases}$$



Q: There is a word in the English language in which the first two letters signify a male, the first three letters signify a female, the first four signify a great man, and the whole word, a great woman. What is the word?

2. Find all solutions to the system: $\begin{cases} x^2 + y^2 = 10 \\ 2x + y = 1 \end{cases}$

3. Find all solutions to the system: $\begin{cases} 3x^2 + 4x - y = 7 \\ 2x - y + 1 = 0 \end{cases}$

4. Find all solutions to the system:
$$\begin{cases} x^2 - y^2 - 3 = 0 \\ xy - 2 = 0 \end{cases}$$

5. Find all solutions to the system:
$$\begin{cases} 3x^2 + 2y + 5 = 0 \\ 6x^2 + y^2 = 2 \end{cases}$$

6. Find all solutions to the system:
$$\begin{cases} x^2 - y^2 = 1 \\ 2x^2 - y^2 = x + 3 \end{cases}$$

7. Find all solutions to the system:
$$\begin{cases} x^2 + 2y^2 = 2 \\ 2x^2 - 3y = 3 \end{cases}$$

Optional exercises from the Sullivan book if you'd like more practice:
11.6 (p.774) #25-41 odd