

Practice for 4.1 Linear and Nonlinear Systems of Equations

The following problems will help you practice the material you learned today. Once you are finished check your solutions. Once done, you can work on your WeBWork homework.

Solve each system:

1. Use substitution

$$\begin{aligned}x - 2y &= 0 \\ 3x - y^2 &= 0\end{aligned}$$

2. Solve graphically

$$\begin{aligned}x^2 - 6x - 27 + y^2 &= 0 \\ y - x &= 3\end{aligned}$$

3. Solve:

$$\begin{aligned}x^2 + y^2 &= 25 \\ 2x + y &= 10\end{aligned}$$

4. You are offered two jobs selling cleaning supplies. One company offers a straight commission of 6% of your sales. The other company offers a salary of \$300 per week plus 3% of sales. How much would you have to sell in a week in order to make the straight commission a better job?