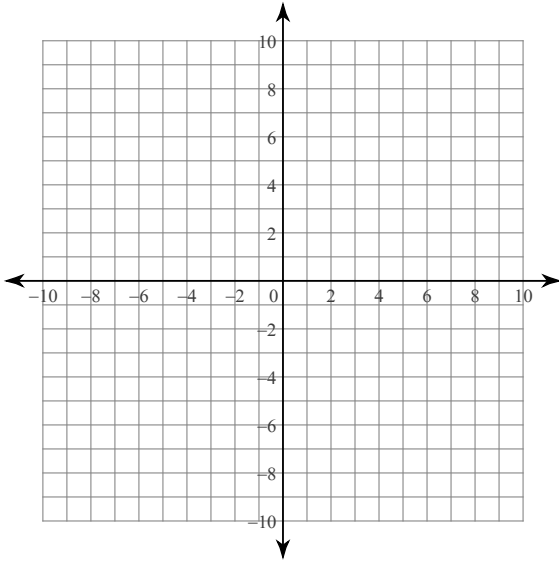


Chapter 14 Review - self assessment

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Solve each system by graphing.

$$1) \begin{aligned} y &= -x + 1 \\ y &= -4x - 2 \end{aligned}$$

**Solve each system by substitution.**

$$2) \begin{aligned} y &= -3x - 4 \\ y &= 4x - 11 \end{aligned}$$

$$3) \begin{aligned} y &= -7x + 2 \\ 2x - 5y &= -10 \end{aligned}$$

$$4) \begin{aligned} x + 4y &= -8 \\ -7x - 7y &= 14 \end{aligned}$$

Solve each system by elimination.

$$5) \begin{aligned} 3x + 6y &= -15 \\ -3x + 3y &= -3 \end{aligned}$$

$$6) \begin{aligned} -x - 10y &= 16 \\ -10x - 10y &= -20 \end{aligned}$$

$$\begin{aligned} 7) \quad & 8x + 10y = -12 \\ & -x + 4y = 12 \end{aligned}$$

$$\begin{aligned} 8) \quad & -2x - 8y = 24 \\ & 5x + 3y = -26 \end{aligned}$$

$$\begin{aligned} 9) \quad & 6 + 3x = -6y \\ & -10x = 28 + 12y \end{aligned}$$

Write a system of equations to solve each problem. Show all work.

10) The difference of two numbers is 3. Their sum is 25. Find the numbers.

11) Beth and Jasmine are selling cheesecakes for a school fundraiser. Customers can buy pecan cheesecakes and chocolate marble cheesecakes. Beth sold 12 pecan cheesecakes and 14 chocolate marble cheesecakes for a total of \$382. Jasmine sold 12 pecan cheesecakes and 1 chocolate marble cheesecake for a total of \$161. What is the cost each of one pecan cheesecake and one chocolate marble cheesecake?

12) The senior classes at High School A and High School B planned separate trips to the local amusement park. The senior class at High School A rented and filled 4 vans and 4 buses with 176 students. High School B rented and filled 12 vans and 4 buses with 232 students. Each van and each bus carried the same number of students. How many students can a van carry? How many students can a bus carry?