

Name: _____ is Capable! ☺

Math 115 Spring 2026
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Standard 4 Practice

1. What does a solution to a system of equations represent?
2. Solve each of the systems by graphing and state whether the system is independent, consistent, inconsistent, or dependent.

a.
$$\begin{cases} 4x + 3y = -12 \\ y = -\frac{4}{3}x + 5 \end{cases}$$

b.
$$\begin{cases} 2x - 5y = 10 \\ y = \frac{2}{5}x - 2 \end{cases}$$

3. Solve each of the systems by substitution

a.
$$\begin{cases} x + y = 10 \\ y = 2x + 1 \end{cases}$$

b.
$$\begin{cases} x + 3y = 1 \\ -3x - 3y = -15 \end{cases}$$

4. Solve each of the systems by elimination

a.
$$\begin{cases} 4x + y = 11 \\ 2x - y = 1 \end{cases}$$

b.
$$\begin{cases} 2x - 5y = 15 \\ 3x + 7y = 8 \end{cases}$$

5. Solve the system using any method

a.
$$\begin{cases} 2x + y = 7 \\ x - 2y = 6 \end{cases}$$

6. At a movie theater, adult tickets cost \$10 and child tickets cost \$5. On one day, the theater sold 40 tickets and made \$275 in total. How many adult tickets and how many child tickets were sold?

7. Liam has only nickels and dimes in his pocket. He has 12 coins in total, and together they are worth 85 cents. How many nickels and how many dimes does he have?

8. Intersecting lines have _____ solution. The system is

_____.

Parallel lines have _____ solution. The system is _____.

Coinciding lines have _____ solutions. The system is

_____.