

This problem set is intended for practicing **checking** solutions of equations, inequalities, and systems of equations. Instead of applying systematic methods to find solutions (i.e. solving), just check each of the answers offered to eliminate all incorrect answers.

- Find all solutions of the equation. $|2x - 3| = 11$
A) 4 and 7 B) 4 C) -4 and 7 D) -7, 7
- Solve the equation. $x + 1 = 9x^3 + 9x^2$
A) -3, -1, and 7 B) -1, $-\frac{1}{3}$, and $\frac{1}{3}$ C) 0 D) -1, 0, and 1
- Solve the following equation. $x^3 = 4x$
A) -2, 0, and 2 B) -2 and 2 C) 2 D) 0 and 4
- Solve the following equation: $2x^2 + 5x = 3$
A) -3 and $\frac{1}{2}$ B) -3 C) -3 and 2 D) $-\frac{3}{2}$ and -1
- Which of the following is a solution of $5x - y = 8$?
A) $x = 3$ and $y = -7$ B) $x = 2$ and $y = -2$ C) $x = 1$ and $y = -3$ D) $x = -1$ and $y = 13$
- Solve:

$$\begin{aligned}5x + y &= 25 \\ x &= y - 7\end{aligned}$$

- A) $x = 2$ and $y = 15$ B) $x = 3$ and $y = 10$ C) $x = 5$ and $y = 12$ D) $x = 10$ and $y = -25$
- Solve: $8t + t^2 - 14 = \frac{1}{4}$
A) $t = \frac{3}{2}$ B) $t = \frac{3}{2}$ or $t = -\frac{3}{2}$ C) $t = -\frac{19}{2}$ or $t = \frac{3}{2}$ D) $t = -\frac{3}{2}$ or $t = \frac{19}{2}$
 - Solve the following system of equations:

$$\begin{aligned}2x + 3y &= 11 \\ x - 4y &= 0\end{aligned}$$

- A) $x = 4$ and $y = 1$ B) $x = 10$ and $y = -3$ C) $x = 1$ and $y = 3$ D) $x = -1$ and $y = 4$
- Solve: $-6(t + 3) + 2(5 - t) = -9$
A) $\frac{11}{8}$ B) $\frac{17}{8}$ C) $\frac{22}{7}$ D) $\frac{1}{8}$
 - Solve the inequality $\frac{x + 7}{5} - \frac{x - 1}{3} \leq 2$
A) $[-7, \infty)$ B) $(-\infty, -2]$ C) $[12, \infty)$ D) $[-2, \infty)$