

Math 1513 - College Algebra

Week 14 Discussion Board Questions

Solve each system of equations. Indicate if the system is inconsistent or has an infinite number of solutions. Leave your final answers in fractional form, do NOT use decimals.

1.

$$\begin{aligned}x + 2y + 3z &= -6 \\2x - 3y - 4z &= 15 \\3x + 4y + 5z &= -8\end{aligned}$$

2.

$$\begin{aligned}2x + 3y + 4z &= -12 \\x - 2y + z &= -5 \\3x + y + 2z &= 1\end{aligned}$$

3.

$$\begin{aligned}x + y + z &= 1 \\x + y - 2z &= 3 \\2x + y + z &= 2\end{aligned}$$

4.

$$\begin{aligned}2x - y + z &= 3 \\x - 3y + z &= 4 \\-5x - 2z &= -5\end{aligned}$$

5.

$$\begin{aligned}x + y + z &= 2 \\x - y + 2z &= 3 \\3x + 5y + 2z &= 6\end{aligned}$$

6.

$$\begin{aligned}x + y + z &= 0 \\x + y &= 3 \\y + z &= 1\end{aligned}$$

7.

$$\begin{aligned}x + 2y + z &= 7 \\x + 2y + 3z &= 11 \\2x + y + 4z &= 12\end{aligned}$$

8.

$$\begin{aligned}4x + 2y - z &= 5 \\3x + 3y + 6z &= 1 \\5x + y - 8z &= 8\end{aligned}$$

9.

$$\begin{aligned}x + y + z &= 1 \\x + 2y + z &= 3 \\x + y - z &= 2\end{aligned}$$

10.

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

11.

$$\begin{aligned}2x + y + 3z &= 8 \\-x + y + z &= 10 \\x + y + z &= 12\end{aligned}$$

12.

$$\begin{aligned}2x - 3z &= 4 \\x + 4y - 5z &= -6 \\3x + 4y - z &= -2\end{aligned}$$

13.

$$\begin{aligned}x + 3y + 7z &= 1 \\3x - y - 5z &= 9 \\2x + y + z &= 4\end{aligned}$$

14.

$$\begin{aligned}2x - y + z &= 2 \\3x + y + 2z &= 3 \\x + y - z &= -1\end{aligned}$$

15.

$$\begin{aligned}x - 2y + 3z &= -2 \\x - 5y + 9z &= 4 \\2x - y &= 6\end{aligned}$$

16.

$$\begin{aligned}x + 2y - 2z &= 8 \\5y - z &= 6 \\-2x + y + 3z &= -2\end{aligned}$$

17.

$$\begin{aligned}z - 2y + x &= -5 \\z + 2x &= -10 \\y - z &= 15\end{aligned}$$

18.

$$\begin{aligned}-3z + 2y &= 4 \\2z + x &= -2 \\-8y + x + 14z &= -18\end{aligned}$$