

Systems of Three Variables Maze!

Directions: Use your knowledge of systems of equations to solve the problems below. Use your solutions to navigate through the maze. **Staple all work to this paper!**

Start!

Find the value of y :

$$\begin{cases} x + y + z = 1 \\ 2x - 3y + 4z = 8 \\ -5x - 9y + z = -9 \end{cases}$$

Find the value of x :

$$\begin{cases} 9x + 2y - 3z = -28 \\ 5x + 3y + z = 3 \\ -2x - 4y + 7z = -6 \end{cases}$$

Find the value of y :

$$\begin{cases} -6x + 7y + 2z = -35 \\ 8x - 2y - 3z = 9 \\ 3x + 3y - 6z = -30 \end{cases}$$

Find the value of z :

$$\begin{cases} -3x - 2y + 4z = -15 \\ 7x + 3y - z = 10 \\ 4x - 4y - 3z = -18 \end{cases}$$

Find the value of z :

$$\begin{cases} x - 2y + z = 13 \\ 3x + y + 4z = -2 \\ -2x - 3y - 7z = 11 \end{cases}$$

Find the value of x :

$$\begin{cases} -3x - 9y - z = -24 \\ -5x + 6y - 2z = -39 \\ -4x - 4y - 9z = -9 \end{cases}$$

Find the value of y :

$$\begin{cases} 2x - 3y - 8z = -14 \\ -5x + 2y - z = -38 \\ 3x - 5y + 7z = 56 \end{cases}$$

Find the value of x :

$$\begin{cases} -4x - y + 5z = -10 \\ 3x + 9y + 2z = 33 \\ x + 2y - 3z = -13 \end{cases}$$

Find the value of y :

$$\begin{cases} -2x - 11y + 6z = -12 \\ 7y + 11z = 58 \\ 7x - 2y - 7z = 17 \end{cases}$$

Find the value of x :

$$\begin{cases} -3x + 4y + z = 8 \\ 4x - 3z = -5 \\ 2x - 3y + 5z = 11 \end{cases}$$

Find the value of z :

$$\begin{cases} 3x + 4y - 2z = -16 \\ -5x - 3y + z = 19 \\ 7x + 9y - 2z = -17 \end{cases}$$

End! 😊

Version 1

2 versions

Start!

Find the value of z :

$$\begin{cases} 3x + 4y - 7z = 1 \\ -2x - 7y + 4z = -2 \\ 5x - 5z = 15 \end{cases}$$

Find the value of y :

$$\begin{cases} x - 4y = 11 \\ 3y - 5z = -33 \\ 5z + 2z = 47 \end{cases}$$

Find the value of x :

$$\begin{cases} -x + 3y - 4z = -13 \\ 7x + 2y + 5z = 22 \\ 6x - 5y + z = 29 \end{cases}$$

Find the value of z :

$$\begin{cases} x + y + z = 8 \\ 4x - 4y + 3z = 0 \\ -6x + 3y - 4z = -12 \end{cases}$$

Find the value of z :

$$\begin{cases} 3x - y + 2z = -12 \\ 2x - 2y + z = -15 \\ x + 3y + 2z = 14 \end{cases}$$

Find the value of y :

$$\begin{cases} 3x - 7y + 2z = 13 \\ 4x + 4y - 5z = -59 \\ 8x - 2y + 4z = -36 \end{cases}$$

Find the value of x :

$$\begin{cases} x + 5y - 4z = 0 \\ -x - 3y + z = 5 \\ 2x + 7y - 3z = -8 \end{cases}$$

Find the value of y :

$$\begin{cases} 4x + 3z = 8 \\ y - 2z = -4 \\ 2x - 3y = 16 \end{cases}$$

Find the value of x :

$$\begin{cases} 5x + y + 3z = 0 \\ -2x + 4y - z = 4 \\ 3x - 3y + 2z = -4 \end{cases}$$

Find the value of z :

$$\begin{cases} x - y + z = -2 \\ 7x - 3y + 4z = 21 \\ -5x + 2y - 3z = -14 \end{cases}$$

Find the value of x :

$$\begin{cases} 9x - 4z = 61 \\ -7y + 3z = -5 \\ 5x + 2y = 23 \end{cases}$$

Find the value of z :

$$\begin{cases} 8x - 3y + 5z = 9 \\ 6x - 2y + 4z = 8 \\ -3x + 4y + 3z = 7 \end{cases}$$

Find the value of y :

$$\begin{cases} -x + 7y + 4z = -11 \\ 8x + 2y - z = 38 \\ 5x + 9y + 3z = 15 \end{cases}$$

End! 😊

Version 2

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