Question#9312

Sub 25
Question 1:

Solve the system:
z + 3x + y = 3
2x + 3y = 10
2y = 8

Solution:

$$\begin{cases} z+3x+y=3 \\ 2x+3y=10 \\ 2y=8 \end{cases};$$

$$\begin{cases} z+3x+y=3 \\ 2x+3y=10 \\ y=4 \end{cases};$$

$$\begin{cases} z+3x+y=3 \\ 2x+3*4=10 \\ y=4 \end{cases};$$

$$\begin{cases} z+3x+y=3 \\ x=-1 \\ y=4 \end{cases};$$

$$\begin{cases} z+3*(-1)+4=3 \\ x=-1 \\ y=4 \end{cases};$$

$$\begin{cases} z=2 \\ x=-1 \\ y=4 \end{cases};$$

Answer: $x=-1, y=4, z=2$