11. Solve
$$\frac{1}{3}(x+y-5) = y-z = 2x-11 = 9-(x+2z)$$

Solution:

$$x + y - 5 = 3y - 3z$$

$$\Rightarrow x - 2y + 3z = 5 - ---(1)$$

$$y - z = 2x - 11$$

$$\Rightarrow 2x - y + z = 11 - ---(2)$$

$$2x - 11 = 9 - x - 2z$$

$$\Rightarrow 3x + 2z = 20 - ---(3)$$
(1)
$$\Rightarrow x - 2y + 3z = 5$$
(2)
$$x 2 \Rightarrow 4x - 2y + 2z = 22$$
Sub
$$-3x + z = -17$$
(4)
$$x 2 \Rightarrow -6x + 2z = -34$$
Otesale. Co.---(4)
(3)
$$\Rightarrow 3x + 2y + 3z = 6$$
from (4)
$$-18 + z = -17$$

$$z = 1$$
from (2)
$$12 - y + 1 = 11$$

$$y = 2$$

 \therefore Solution is x = 6, y = 2, z = 1