

$$\begin{aligned} 10 \text{ (i)} \quad & x^2 - 2x - 8 \\ & = x^2 - 4x + 2x - 8 \\ & = x(x-4) + 2(x-4) \\ & = (x-4)(x+2) \end{aligned}$$

For finding zeros

$$x-4=0, \quad x+2=0$$

$$\Rightarrow x=4, \quad x=-2$$

$$\begin{aligned} \text{Sum of zeros} & = 4 + (-2) \\ & = \frac{2}{1} \end{aligned}$$

$$= -\left(\frac{-2}{1}\right)$$

$$= -\frac{b}{a}$$

$$[\because a=1, b=-2]$$

$$\text{Product of zeros} = 4(-2)$$

$$= -\frac{8}{1} = \frac{c}{a} \quad [\because a=1, c=-8]$$