

$$\begin{aligned}
 10 \text{ (iv)} \quad & 0^2 - 2 \times 0 \\
 & = 0 - 0 \\
 & = 0 \\
 & 2^2 - 2 \times 2 \\
 & = 4 - 4 \\
 & = 0 \quad \text{true}
 \end{aligned}$$

$$\begin{aligned}
 10 \text{ (v)} \quad & (-3)^2 + (-3) - 6 \\
 & = 9 - 3 - 6 \\
 & = 9 - 9 \\
 & = 0 \quad \text{true}
 \end{aligned}$$

$$\begin{aligned}
 11 \text{ (i)} \quad & p(x) = x - 4 \\
 & \text{For finding zero} \\
 & x - 4 = 0 \\
 & \Rightarrow x = 4 \\
 & \text{zero is } 4
 \end{aligned}$$

$$\begin{aligned}
 \text{(ii)} \quad & \text{For finding zero} \\
 & 3 - 6x = 0 \\
 & \Rightarrow 6x = 3 \\
 & \Rightarrow x = \frac{1}{2} \\
 & \text{zero is } \frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 \text{(iii)} \quad & \text{For fund. zero} \\
 & 2x - 7 = 0 \\
 & \Rightarrow 2x = 7 \\
 & \Rightarrow x = \frac{7}{2} \\
 & \text{zero is } \frac{7}{2}
 \end{aligned}$$

$$\begin{aligned}
 11 \text{ (iv)} \quad & \text{For zero} \\
 & 2y = 0 \\
 & \Rightarrow y = 0 \\
 & \text{zero is } 0
 \end{aligned}$$

$$\begin{aligned}
 \text{(12)} \quad & p(x) = (x-2)^2 - (x+2)^2 \\
 & = x^2 + 4 - 4x - (x^2 + 4 + 4x) \\
 & = x^2 + 4 - 4x - x^2 - 4 - 4x \\
 & = -8x
 \end{aligned}$$

For finding zeros

$$\begin{aligned}
 -8x & = 0 \\
 \Rightarrow x & = \frac{0}{-8} \\
 & = 0
 \end{aligned}$$

zero is 0

$$\begin{array}{r}
 x^3 + x^2 + x + 1 \\
 x-1 \overline{) x^4 + 1} \\
 \underline{x^4 - x^3} \\
 x^3 + 1 \\
 \underline{x^3 - x^2} \\
 x^2 + 1 \\
 \underline{x^2 - x} \\
 x + 1 \\
 \underline{x - 1} \\
 2
 \end{array}$$

$$\begin{aligned}
 q(x) & = x^3 + x^2 + x + 1 \\
 r(x) & = 2
 \end{aligned}$$