



Exercise 2B

Question 1:

$$p(x) = 5 - 4x + 2x^2$$

$$(i) p(0) = 5 - 4(0) + 2(0)^2 = 5$$

$$\begin{aligned}(ii) p(3) &= 5 - 4(3) + 2(3)^2 \\ &= 5 - 12 + 18 \\ &= 23 - 12 = 11\end{aligned}$$

$$\begin{aligned}(iii) p(-2) &= 5 - 4(-2) + 2(-2)^2 \\ &= 5 + 8 + 8 = 21\end{aligned}$$

Question 2:

$$p(y) = 4 + 3y - y^2 + 5y^3$$

$$\begin{aligned}(i) p(0) &= 4 + 3(0) - 0^2 + 5(0)^3 \\ &= 4 + 0 - 0 + 0 = 4\end{aligned}$$

$$\begin{aligned}(ii) p(2) &= 4 + 3(2) - 2^2 + 5(2)^3 \\ &= 4 + 6 - 4 + 40 \\ &= 10 - 4 + 40 = 46\end{aligned}$$

$$\begin{aligned}(iii) p(-1) &= 4 + 3(-1) - (-1)^2 + 5(-1)^3 \\ &= 4 - 3 - 1 - 5 = -5\end{aligned}$$

Question 3:

$$f(t) = 4t^2 - 3t + 6$$

$$\begin{aligned}(i) f(0) &= 4(0)^2 - 3(0) + 6 \\ &= 0 - 0 + 6 = 6\end{aligned}$$

$$\begin{aligned}(ii) f(4) &= 4(4)^2 - 3(4) + 6 \\ &= 64 - 12 + 6 = 58\end{aligned}$$

$$\begin{aligned}(iii) f(-5) &= 4(-5)^2 - 3(-5) + 6 \\ &= 100 + 15 + 6 = 121\end{aligned}$$

***** END *****