

Exercise 2C

Question 4:

$$f(x) = x^3 - 7x^2 + 6x + 4$$

Now,
$$x - 6 = 0 \Rightarrow x = 6$$

By the remainder theorem, we know that when f(x) is divide by (x - 6) the remainder is f(6)

Now,
$$f(6) = 6^3 - 7 \times 6^2 + 6 \times 6 + 4$$

.. The required remainder is 4.

Question 5:

$$f(x) = (x^3 - 6x^2 + 13x + 60)$$

Now,
$$x + 2 = 0 \Rightarrow x = -2$$

By the remainder the theorem, we know that when f(x) is divide by (x + 2) the remainder is f(-2).

Now,
$$f(-2) = (-2)^3 - 6(-2)^2 + 13(-2) + 60$$

.. The required remainder is 2.

Question 6:

$$f(x) = (2x^4 + 6x^3 + 2x^2 + x - 8)$$

Now,
$$x + 3 = 0 \Rightarrow x = -3$$

By the remainder the theorem, we know that when f(x) is divide by (x + 3) the remainder is f(-3).

$$f(-3) = 2(-3)^4 + 6(-3)^3 + 2(-3)^2 - 3 - 8$$

 \therefore The required remainder is 7.

********* END ********