

Factorisation of Polynomials Ex 6.1 Q1

Answer:

(i) $3x^2 - 4x + 15$ is a polynomial of degree 2.i.e Quadratic polynomial.

(ii) $y^2 + 2\sqrt{3}$ is a polynomial of degree 2 in y variable. i.e. Quadratic polynomial.

(iii)
$$3\sqrt{x} + \sqrt{2}x$$

It is not a polynomial because exponent of x is 1/2 which is not a positive integer.

(iv)
$$2 - \frac{4}{x}$$

It is not a polynomial because $\frac{4}{x}$ is fractional part.

(v)
$$x^{12} + y^2 + t^{50}$$

It is a polynomial in three variables x, y and t.

Factorisation of Polynomials Ex 6.1 Q2

Answer:

(i)
$$17 - 2x + 7x^2$$

Coefficient of
$$x^2 = 7$$

(ii)
$$9-12x+x^3$$

Coefficient of
$$x^2 = 0$$

(iii)
$$\frac{\pi}{6}x^2 - 3x + 4$$

Coefficient of
$$x^2 = \pi / 6$$

(iv)
$$\sqrt{3}x - 7$$

Coefficient of
$$x^2 = 0$$

Answer:

(i)
$$7x^3 + 4x^2 - 3x + 12$$

Degree of the polynomial = 3

Because the highest power of x is 3.

(ii)
$$12-2+2x^3$$

Degree of the polynomial = 3. Because the highest power of x is 3.

(iii)
$$5y - \sqrt{2}$$

Degree of the polynomial = 1. Because the highest power of y is 1.

(iv) 7

Degree of the polynomial = 0. Because there is no variable term in the expression (v) 0

Degree of the polynomial is not defined. As there is no variable or constant term

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