

Mathematics

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(Chapter – 2) (Polynomials)(Exemplar Problems)

(Class – IX)

Exercise 2.3

Question 3:

For the polynomial $\frac{x^3+2x+1}{5} - \frac{7}{2}x^2 - x^6$, write

- (i) the degree of the polynomial
- (ii) the coefficient of x^3
- (iii) the coefficient of x^6
- (iv) the constant term

Answer 3:

(i) 6

The maximum exponent of the variable is 6. So, the degree is 6.

(ii) Given that: $\frac{x^3+2x+1}{5} - \frac{7}{2}x^2 - x^6$
 $= \frac{x^3}{5} + \frac{2x+1}{5} - \frac{7}{2}x^2 - x^6$

The coefficient of x^3 is $\frac{1}{5}$.



(iii) -1

The coefficient of x^6 is -1.

(iv) Given that: $\frac{x^3+2x+1}{5} - \frac{7}{2}x^2 - x^6$
 $= \frac{x^3}{5} + \frac{2x}{5} + \frac{1}{5} - \frac{7}{2}x^2 - x^6$

The constant term is $\frac{1}{5}$.

