Work Sheet 4. Class X MATHS

CHECK YOUR UNDERSTANDING

MULTIPLE-CHOICE QUESTIONS

For Basic and Standard Levels

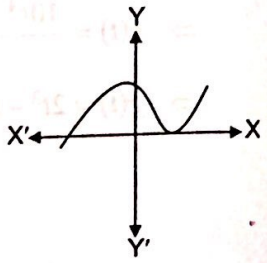
Choose the correct answer from the given four options in the following questions:

1. Which of the following is a polynomial?

   (a) $3x^2 + \frac{1}{x} - 5$ (b) $-2x^2 + 5\sqrt{x} + 8$

   (c) $\sqrt{2}\,x^3 + \sqrt{3}\,x^2 + \sqrt{5}\,x - 3$ (d) $\frac{3}{x^3} + 4x^2 - 5x + \frac{1}{3}$

2. The graph of $y = p(x)$ is given. The number of zeroes of $p(x)$ are:



   (a) 0 (b) 3

   (c) 2 (d) 4 **[CBSE SP 2011]**

3. A real number α is called zero of the polynomial $f(x)$ when

   (a) $f(\alpha) = -2$ (b) $f(\alpha) = 0$ (c) $f(\alpha) = 1$ (d) $f(\alpha) = -1$

4. The zeroes of the polynomial $x^2 + 7x + 12$ are:

   (a) 3, 4 (b) $-3, -4$ (c) $-3, 4$ (d) $3, -4$

5. If $p(x) = x^2 + 5x + 2$, then the value of $p(3) + p(2) + p(0)$ is:

   (a) 40 (b) 44 (c) 8 (d) 42

6. The zeroes of the quadratic polynomial $x^2 + 43x + 222$ are:

   (a) both equal (b) one positive one negative

   (c) both negative (d) both positive

7. The quadratic polynomial whose zeroes are $5 + \sqrt{2}$ and $5 - \sqrt{2}$ is:

   (a) $x^2 - 5x + 21$ (b) $x^2 + 5x + 21$

   (c) $x^2 - 10x + 23$ (d) $x^2 + 10x + 23$

8. A quadratic polynomial whose sum and product of zeroes are $\sqrt{2}$ and $\frac{1}{3}$ respectively, is:

   (a) $3x^2 + 3\sqrt{2}\,x + 1$ (b) $3x^2 - 3\sqrt{2}\,x + 1$

   (c) $3x^2 - 3\sqrt{2}\,x - 1$ (d) $-3x^2 - 3\sqrt{2}\,x + 1$

9. A quadratic polynomial, one of whose zero is $2 + \sqrt{5}$ and the sum of whose zeroes is 4 is

   (a) $x^2 + 4x - 1$ (b) $x^2 - 4x - 1$

   (c) $x^2 - 4x + 1$ (d) $x^2 + 4x + 1$

10. A quadratic polynomial, one of whose zero is $\sqrt{5}$ and the product of whose zeroes is $-2\sqrt{5}$ is

    (a) $x^2 + (2 - \sqrt{5})x - 2\sqrt{5}$ (b) $x^2 - (2 - \sqrt{5})x + 2\sqrt{5}$

    (c) $x^2 + (2 - \sqrt{5})x + 2\sqrt{5}$ (d) $x^2 - (2 - \sqrt{5})x - 2\sqrt{5}$