



Zero and value of polynomial

I. Choose the correct option:

(i) Zeroes of the polynomial $(x - 5)(x + 9)$

a) $-5, 9$ b) $5, 9$ c) $5, -9$ d) $-5, -9$

(ii) Value of $p(x) = 5x(3x - 5)(5 - 3x)$ at $x = -1$ is

a) 320 b) -320 c) 80 d) 20

(iii) How many distinct zeroes will be there for $p(x) = (x - 3)(x + 3)(x - 5)^2$

a) 4 b) 3 c) 2 d) 1

II. Verify if zero of polynomial $(x - 2)$ is also zero of polynomial $p(x) = 3x^2 - 4x - 4$

III. Find the value of $p(1)$ and $p(-3)$ for the polynomial $p(x) = -\frac{5}{3}x^2 - 3x + 6$

IV. Find the zero of the polynomial $q(x) = 8x + 9$

V. Check if $x = \frac{1}{2}$ is zero of $p(x) = 2x^4 + x^3 - x + 2$

VI. Find the value of k if $x = 5$ is the zero of $p(x) = 3x^2 + 5x + k$



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Answer

I. Choose the correct option

- (i) c
- (ii) a
- (iii) b

II. zero of $x - 2$ is 2. $p(2) = 0$.

III. $p(1) = 4/3$, $p(-3) = 0$

IV. $8x + 9 = 0$, $x = -\frac{9}{8}$

V. $p(\frac{1}{2}) = \frac{7}{4}$. Hence $x = \frac{1}{2}$ is not zero of the polynomial

VI. $k = -100$

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