Foundation

Udaan 2025
Maths
Polynomials

DHA: 2

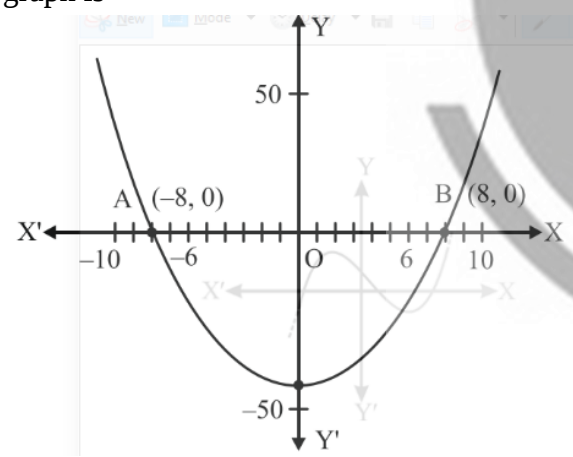
Q 1 If the graph of a polynomial intersects the x-axis at only one point, it can be a

(A) linear (B) quadratic
(C) cubic (D) none of these

Q 2 The graph of a quadratic polynomial is .....

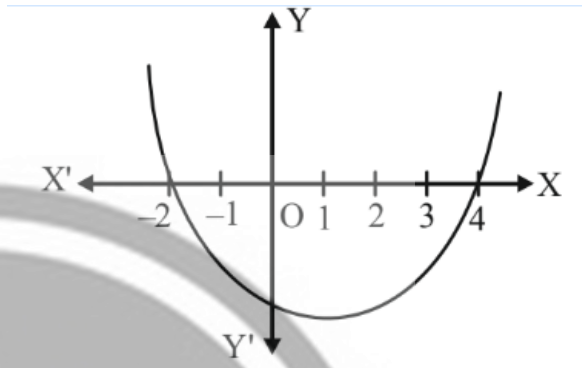
(A) straight line
(B) parabola
(C) hyperbola
(D) none of these

Q 3 The expression of the polynomial represented by the graph is



(A) $x^2 - 49$ (B) $x^2 - 64$
(C) $x^2 - 36$ (D) $x^2 - 81$

Q 4 The two zeroes in the below shown graph are



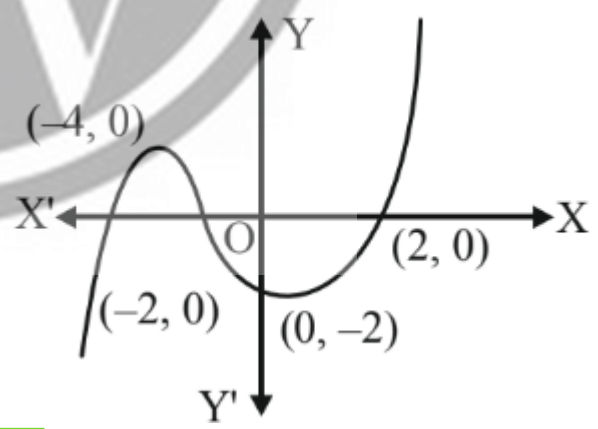
(A) 2, 4 (B) –2, 4
(C) -8, 4 (D) 2, -8

Q 5 The zeroes of of the quadratic polynomial $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ are

(A) $\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$ (B) $-\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$
(C) $\frac{2}{\sqrt{3}}, -\frac{\sqrt{3}}{4}$ (D) $-\frac{2}{\sqrt{3}}, -\frac{\sqrt{3}}{4}$

Important question, Do Again.

Q 6 The number of zeroes for the given graph is



(A) 3 (B) 2
(C) 4 (D) 1

Answer Key

Q1	**A**
Q2	**B**
Q3	**B**
Q4	**B**
Q5	**B**
Q6	**A**

Hints & Solutions

Q 1 **Text Solution:**

A linear polynomial intersects the x-axis at only one point.

Video Solution:

Q 2 **Text Solution:**

The graph of a quadratic function is always a parabola, irrespective of the values of x and y.

Video Solution:

Q 3 **Text Solution:**

$\left(x^2-64\right)$ is expression of the polynomial represented because $A(-8,0)$ and $B(8,0)$ i.e., on this quadratic equation $\left(x^2-64\right)$.

Video Solution:

Q 4 **Text Solution:**

The curve intersect x-axis at points x=-2 and x=4.

Video Solution:

Q 5 **Text Solution:**

Given polynomial is $4\sqrt{3}x^2+5x-2\sqrt{3}$

product of $4\sqrt{3}\ and\ -2\sqrt{3}\ is\ -24$

$\Rightarrow 4\sqrt{3}x^2+8x-3x-2\sqrt{3}$

$\Rightarrow 4x\left(\sqrt{3}x+2\right)-\sqrt{3}\left(\sqrt{3}x+2\right)$

$\Rightarrow \left(4x-\sqrt{3}\right)\left(\sqrt{3}x+2\right)$

$4x-\sqrt{3}=0\Rightarrow x=\frac{\sqrt{3}}{4}$

$\sqrt{3}x+2=0\Rightarrow x=\frac{-2}{\sqrt{3}}$

$The\ two\ zeroes\ are\ \frac{\sqrt{3}}{4}\ and\ \frac{-2}{\sqrt{3}}$

Video Solution:

Q 6 **Text Solution:**

Since the curve cuts the x-axis at 3 points. So, there are 3 zeroes of the given graph.

Video Solution: