MATHS

BOOKS - INDEPENDENTLY PUBLISHED MATHS (ENGLISH)

HIGHER DEGREE POLYNOMIALS

Examples

1. Solve $x^2 + 27 = 0$

Watch Video Solution

2. Solve $x^4 - 3x^2 + 2 = 0.$

Watch Video Solution

3. Solve $x^3 - 8x - 3 = 0.$

Watch Video Solution

4. Solve $x^3 - 2x^2 + 2x - 4 = 0.$

Watch Video Solution

Exercises

1. $P(x) = ax^4 + x^3 - bx^2 - 4x + c.$ if P(x) increases without bound as x increases without bound, then, as x decreases without bound, P(x)

A. increases without bound

B. decreases without bound

C. approaches zero from above the x-axis

D. approaches zero from below the x-axis

Answer: A

Watch Video Solution

2. Which of the following is an odd function?

I. $f(x) = 3x^3 + 5$

II. $g(x) = 4x^6 + 2x^4 - 3x^2$

III. $h(x) = 7x^5 - 8x^3 + 12x$

A. only I

B. only II

C. only III

D. only I and II

Answer: C

Watch Video Solution

3. How many possible rational roots are there for $2x^4 + 4x^3 - 6x^2 + 15x - 12 = 0$?

A. 4

B. 6

C. 8

D. 16

Answer: D

Watch Video Solution

4. If both x-1 and x-2 are factors of $x^3 - 3x^2 + 2x - 4b$, then b must be

A. 0

B. 1

C. 2

D. 3

Answer: A

Watch Video Solution

5. if $3x^3 - 9x^2 + Kx - 12$ is divisible by $x - 3$, then K=

A. -40

B. -3

C. 3

D. 4

Answer: D

 Watch Video Solution

6. Write the equation off lowest degree with real coefficients if two of its roots are -1 annd 1+i.

A. $x^3 + x^2 + 2 = 0$

B. $x^3 - x^2 - 2 = 0$

C. $x^3 - x + 2 = 0$

D. $x^3 - x^2 + 2 = 0$

Answer: D

Watch Video Solution