

CBSE CLASS X

Mathematics Standard (041)

QUESTION PAPER

From previous CBSE Board Exam questions

Code: YWA1HH

Questions: 54

Maximum Marks: 86

Generated: 2026-06-15 13:05

SELECTIONS USED

Source	Previous-year board
Subject	Mathematics
Lessons	Polynomials
Year	2022-2026
Questions selected	54

Composition — Types: 32 MCQ · 8 Very short · 6 Short · 4 Assertion–reason · 4 Case-based

Q1. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[1]

If a polynomial $p(x)$ is given by $p(x) = x^2 - 5x + 6$, then the value of $p(1) + p(4)$ is :

- A 0
- B 4
- C 2
- D -4

Previously asked in: 2024 30/4/1 Q3

♦ Polynomials

Evaluating a Polynomial at a Given Value

Q2. § 2.4 Summary

[1]

Two polynomials are shown in the graph below. The number of distinct zeroes of both the polynomials is:

- A 3
- B 5
- C 2
- D 4

Previously asked in: 2025 30/1/1 Q10

♦ Polynomials

2.2 Geometrical Meaning of the Zeroes of a Polynomial

Q3. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary

[1]

Observe the graph of polynomial $p(x)$. Number of zeroes of $p(x)$ is

- A 5
- B 4
- C 6
- D 3

Previously asked in: 2026 30/4/1 Q5

♦ Polynomials

2.2 Geometrical Meaning of the Zeroes of a Polynomial

Q4. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary**[1]**

The graph of $y = p(x)$ is given, for a polynomial $p(x)$. The number of zeroes of $p(x)$ from the graph is

- A 3
- B 1
- C 2
- D 0

Previously asked in: 2023 30/1/1 Q1

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial

Q5. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary**[1]**

The graph of $y = f(x)$ is given. The number of zeroes of $f(x)$ is :

- (a) 0
- (b) 1
- (c) 2
- (d) 4

Previously asked in: 2026 30/1/1 Q4

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial

Q6. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary**[1]**

The graph of $y = f(x)$ is given. The number of distinct zeroes of $y = f(x)$ is :

- A 0
- B 1
- C 2
- D 3

Previously asked in: 2026 30/2/1 Q4

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial

Q7. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary**[1]**

If the zeroes of the quadratic polynomial $x^2 + (a + 1)x + b$ are 2 and -3 , then

- A $a = -7, b = -1$
- B $a = 5, b = -1$
- C $a = 2, b = -6$
- D $a = 0, b = -6$

Previously asked in: 2023 30/6/1 Q17

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q8. § 2.4 Summary**[2]**

If α, β are the zeroes of the quadratic polynomial $px^2 + qx + r$, then find the value of $\alpha^3\beta + \beta^3\alpha$.

Previously asked in: 2026 30/2/1 Q21

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q9. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4

[1]

Summary

If α and β are the zeroes of the polynomial $p(x) = kx^2 - 30x + 45k$ and $\alpha + \beta = \alpha\beta$, then the value of k is :

- A $-\frac{2}{3}$
 B $-\frac{3}{2}$
 C $\frac{3}{2}$
 D $\frac{2}{3}$

Previously asked in: 2024 30/5/1 Q15

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q10. § 2.1 Introduction § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary

[1]

Assertion (A) : Degree of a zero polynomial is not defined.

Reason (R) : Degree of a non-zero constant polynomial is 0.

Select the correct answer from the codes (A), (B), (C) and (D) given below.

- A Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
 B Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
 C Assertion (A) is true, but Reason (R) is false.
 D Assertion (A) is false, but Reason (R) is true.

Previously asked in: 2024 30/5/1 Q20

◆ Polynomials

2.1 Types of Polynomials – Degree of Zero and Constant Polynomials

Q11. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[2]

Find the zeroes of the polynomial $p(x) = x^2 + \frac{1}{2}x - 1$.

Previously asked in: 2025 30/1/1 Q22

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q12. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[2]

If α, β are zeroes of the polynomial $p(x) = 5x^2 - 6x + 1$, then find the value of $\alpha + \beta + \alpha\beta$.

Previously asked in: 2024 30/5/1 Q23

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q13. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 [4]

Summary

An arch of a railway bridge, built on Chenab riverbed, is shown in the above diagram. It is a parabolic arch connecting two hills at P and Q. The parabolic curve is represented by the polynomial $p(x) = -0.0025x^2 - 0.025x + 136$.

Observe the diagram and based on the above information, answer the following questions:

- (i) Write the co-ordinates of point A. [1]
- (ii) Find the span of the arch. [1]
- (iii) Write the zeroes of the polynomial using diagram and verify the relationship between sum of zeroes and polynomials. OR Find the values of $p(x)$ at $x = 100$ and $x = -100$. Are they same? [2]

Previously asked in: 2026 30/5/1 Q36

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial
Evaluating a Polynomial at Given Values Span of Parabolic Arch (Distance between Zeroes)

Q14. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial [1]

If the sum of zeroes of the polynomial $p(x) = 2x^2 - k\sqrt{2}x + 1$ is $\sqrt{2}$, then value of k is :

- (a) $\sqrt{2}$
- (b) 2
- (c) $2\sqrt{2}$
- (d) $\frac{1}{2}$

Previously asked in: 2024 30/1/1 Q1

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q15. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial [1]

The zeroes of a polynomial $x^2 + px + q$ are twice the zeroes of the polynomial $4x^2 - 5x - 6$. The value of p is :

- (a) $-\frac{5}{2}$
- (b) $\frac{5}{2}$
- (c) -5
- (d) 10

Previously asked in: 2024 30/1/1 Q10

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q16. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary [1]

The sum and product of zeroes of a quadratic polynomial $p(x)$ are $\frac{-1}{3}$ and 2 respectively. The polynomial $p(x)$ is :

- A $3x^2 - x + 6$
- B $x^2 + \frac{1}{3}x - 2$
- C $3x^2 - x + 2$
- D $-3x^2 - x - 6$

Previously asked in: 2026 30/3/1 Q14

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q17. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[1]

If one zero of the polynomial $6x^2 + 37x - (k - 2)$ is reciprocal of the other, then what is the value of k ?

- (a) -4
- (b) -6
- (c) 6
- (d) 4

Previously asked in: 2023 30/2/1 Q9

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q18. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary

[1]

In Q. No. 19 and 20 a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

Assertion (A) : If the graph of a polynomial touches x -axis at only one point, then the polynomial cannot be a quadratic polynomial.

Reason (R) : A polynomial of degree $n (n > 1)$ can have at most n zeroes.

- (a) Both, Assertion (A) and Reason (R) are true and Reason (R) is correct explanation of Assertion (A).
- (b) Both, Assertion (A) and Reason (R) are true but Reason (R) is not correct explanation for Assertion (A).
- (c) Assertion (A) is true but Reason (R) is false.
- (d) Assertion (A) is false but Reason (R) is true.

Previously asked in: 2024 30/1/1 Q20

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q19. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

The zeroes of the polynomial $p(x) = x^2 + 4x + 3$ are given by:

- (a) $1, 3$
- (b) $-1, 3$
- (c) $1, -3$
- (d) $-1, -3$

Previously asked in: 2023 30/2/1 Q14

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q20. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[1]

If 4 is a zero of the polynomial $p(x) = x^2 - x - (2 + 2k)$, then the value of k is :

- A 3
- B -9
- C 6
- D -3

Previously asked in: 2025 30/2/1 Q16

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q21. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary**[1]**

If α and β are the zeroes of the quadratic polynomial $p(x) = x^2 - ax - b$, then the value of $\alpha^2 + \beta^2$ is:

- (a) $a^2 - 2b$
- (b) $a^2 + 2b$
- (c) $b^2 - 2a$
- (d) $b^2 + 2a$

Previously asked in: 2023 30/2/1 Q16

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q22. § 2.4 Summary**[1]**

Assertion (A): The polynomial $p(x) = x^2 + 3x + 3$ has two real zeroes.

Reason (R): A quadratic polynomial can have at most two real zeroes.

Select the correct answer from the codes (a), (b), (c) and (d) as given below.

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).
- (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
- (c) Assertion (A) is true, but Reason (R) is false.
- (d) Assertion (A) is false, but Reason (R) is true.

Previously asked in: 2023 30/2/1 Q20

◆ **Polynomials** 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q23. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial**[2]**

If p and q are zeroes of the polynomial $p(y) = 21y^2 - y - 2$, then find the value of $(1 - p) \cdot (1 - q)$.

Previously asked in: 2025 30/2/1 Q21

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q24. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary**[4]**

During a theatre drama, a backdrop of building arches was used. The shape of the curve shown below can be represented by the polynomial $p(x) = -x^2 + 2x + 8$, where x is the length (in feet) on stage level.

Based on the figure given above, answer the following questions:

- (i) Determine the height of the arch. [1]
- (ii) Find zeroes of the polynomial $p(x)$. Which points on the graph represent the zeroes? [2]
- (iii) Write the coordinates of the point of intersection of the above curve with the y -axis. [1]

Previously asked in: 2026 30/3/1 Q36

◆ **Polynomials** 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Maximum value (vertex) of a quadratic polynomial

Q25. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

If α and β are the zeroes of the polynomial $p(x) = x^2 - ax - b$, then the value of $(\alpha + \beta + \alpha\beta)$ is equal to:

- A $a + b$
- B $a - b$
- C $a - b$
- D $-(a + b)$

Previously asked in: 2025 30/3/1 Q4

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q26. § 2.4 Summary

[1]

If α, β are zeroes of the polynomial $x^2 - 1$, then the value of $(\alpha + \beta)$ is :

- (a) 2
- (b) 1
- (c) -1
- (d) 0

Previously asked in: 2023 30/4/1 Q8

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q27. § 2.4 Summary

[1]

Which of the following statements is true for a polynomial $p(x)$ of degree 3?

- (a) $p(x)$ has at most two distinct zeroes.
- (b) $p(x)$ has at least two distinct zeroes.
- (c) $p(x)$ has exactly three distinct zeroes.
- (d) $p(x)$ has at most three distinct zeroes.

Previously asked in: 2025 30/4/1 Q17

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q28. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

If α and β are two zeroes of a polynomial $f(x) = px^2 - 2x + 3p$ and $\alpha + \beta = \alpha\beta$, then value of p is :

- A $-\frac{2}{3}$
- B $\frac{2}{3}$
- C $\frac{1}{3}$
- D $-\frac{1}{3}$

Previously asked in: 2026 30/2/1 Q5

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q29. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[1]

Zeroes of the polynomial $p(x) = x^2 - 3x + 4$ are:

- A -2, -2
- B 2, -2
- C -4, -3
- D 3, 2

Previously asked in: 2025 30/3/1 Q17

◆ Polynomials 2.2 Geometrical Meaning of the Zeroes of a Polynomial 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q30. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 [1]

Summary

If α, β are the zeroes of the polynomial $p(x) = 4x^2 - 3x - 7$, then $\left(\frac{1}{\alpha} + \frac{1}{\beta}\right)$ is equal to :

- (a) $\frac{7}{3}$
- (b) $\frac{-7}{3}$
- (c) $\frac{3}{7}$
- (d) $\frac{-3}{7}$

Previously asked in: 2023 30/4/1 Q17

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q31. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial [2]

If one zero of the polynomial $p(x) = 6x^2 + 37x - (k - 2)$ is reciprocal of the other, then find the value of k .

Previously asked in: 2023 30/4/1 Q22

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q32. § 2.4 Summary [3]

α and β are zeroes of a quadratic polynomial $px^2 + qx + 1$. Form a quadratic polynomial whose zeroes are $\frac{2}{\alpha}$ and $\frac{2}{\beta}$.

Previously asked in: 2025 30/4/1 Q30

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q33. § 2.1 Introduction § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary [2]

If α and β are the zeroes of the polynomial $p(y) = y^2 - 4\sqrt{3}y + 3$, then find the value of $4\sqrt{3} - 3 \cdot 4$.

Previously asked in: 2025 30/3/1 Q24 (OR-2)

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q34. § 2.4 Summary [1]

The number of polynomials having zeroes 3 and 5 is :

- (a) only one
- (b) infinite
- (c) exactly two
- (d) at most two

Previously asked in: 2023 30/5/1 Q1

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q35. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary [1]

If α and β are zeroes of the polynomial $5x^2 + 3x - 7$, the value of $\frac{1}{\alpha} + \frac{1}{\beta}$ is

- (A) $-\frac{3}{7}$
- (B) $\frac{3}{7}$
- (C) $\frac{3}{5}$
- (D) $-\frac{5}{7}$

Previously asked in: 2024 30/2/1 Q9

◆ Polynomials 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q36. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[1]

If the zeroes of the polynomial $ax^2 + bx + \frac{2a}{b}$ are reciprocal of each other, then the value of b is

- A 2
- B $\frac{1}{2}$
- C -2
- D $-\frac{1}{2}$

Previously asked in: 2025 30/6/1 Q4

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q37. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[4]

A ball is thrown in the air so that t seconds after it is thrown, its height h metre above its starting point is given by the polynomial $h = 25t - 5t^2$.

Observe the graph of the polynomial and answer the following questions:

A ball is thrown in the air so that t seconds after it is thrown, its height h metre above its starting point is given by the polynomial $h = 25t - 5t^2$. Observe the graph of the polynomial and answer the following questions:

- (i) Write zeroes of the given polynomial. [1]
- (ii) Find the maximum height achieved by ball. [1]
- (iii) After throwing upward, how much time did the ball take to reach to the height of 30 m? OR Find the two different values of t when the height of the ball was 20 m. [2]

Previously asked in: 2024 30/2/1 Q36

◆ Polynomials

2.2 Geometrical Meaning of the Zeroes of a Polynomial

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Maximum value of a quadratic polynomial

Solving quadratic equations from polynomial context

Q38. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary [4]

In a pool at an aquarium, a dolphin jumps out of the water travelling at 20 cm per second. Its height above water level after t seconds is given by $h = 20t - 16t^2$.

Based on the above, answer the following questions :

- (i) Find zeroes of polynomial $p(t) = 20t - 16t^2$. [1]
- (ii) Which of the following types of graph represents $p(t)$? [1]
- (iii) What would be the value of h at $t = \frac{3}{2}$? Interpret the result. OR How much distance has the dolphin covered before hitting the water level again ? [2]

Previously asked in: 2023 30/5/1 Q38

◆ Polynomials

2.2 Geometrical Meaning of the Zeroes of a Polynomial

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q39. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

The zeroes of the quadratic polynomial $2x^2 - 3x - 9$ are :

- A $3, \frac{-3}{2}$
B $-3, \frac{3}{2}$
C $-3, \frac{-3}{2}$
D $3, \frac{3}{2}$

Previously asked in: 2024 30/3/1 Q6

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q40. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial

[3]

Find the zeroes of the polynomial $p(x) = 3x^2 - 4x - 4$. Hence, write a polynomial whose each of the zeroes is 2 more than zeroes of $p(x)$.

Previously asked in: 2025 30/6/1 Q27

◆ Polynomials

2.2 Geometrical Meaning of the Zeroes of a Polynomial

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q41. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[3]

Find the zeroes of the quadratic polynomial $x^2 - 15$ and verify the relationship between the zeroes and the coefficients of the polynomial.

Previously asked in: 2024 30/3/1 Q27

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q42. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

If α, β are the zeroes of a polynomial $p(x) = x^2 + x - 1$, then $\frac{1}{\alpha} + \frac{1}{\beta}$ equals to

- A 1
B 2
C -1
D $-\frac{1}{2}$

Previously asked in: 2023 30/1/1 Q7

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q43. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

Which of the following is a quadratic polynomial having zeroes $-\frac{2}{3}$ and $\frac{2}{3}$?

- A $4x^2 - 9$
B $\frac{4}{9}(9x^2 + 4)$
C $x^2 + \frac{9}{4}$
D $5(9x^2 - 4)$

Previously asked in: 2023 30/1/1 Q14

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q44. § 2.2 Geometrical Meaning of the Zeroes of a Polynomial § 2.4 Summary**[1]**

Directions: Two statements are given, one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer from the codes (a), (b), (c) and (d).

Assertion (A) : The polynomial $p(y) = y^2 + 4y + 3$ has two zeroes.

Reason (R) : A quadratic polynomial can have at most two zeroes.

- (a) Both, Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).
 (b) Both, Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).
 (c) Assertion (A) is true, but Reason (R) is false.
 (d) Assertion (A) is false, but Reason (R) is true.

Previously asked in: 2026 30/1/1 Q20

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Number of Zeroes of a Polynomial

Q45. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary**[2]**

α and β are the zeroes of the polynomial $5x^2 - 16x - 10$. Find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$.

Previously asked in: 2026 30/4/1 Q25

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q46. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary**[2]**

If α, β are the zeroes of the polynomial $p(x) = x^2 - 3x - 1$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.

Previously asked in: 2026 30/1/1 Q21

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q47. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial**[3]**

Find the zeroes of the polynomial $4x^2 + 4x - 3$ and verify the relationship between zeroes and coefficients of the polynomial.

Previously asked in: 2024 30/4/1 Q29(a) (OR-1)

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q48. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary**[3]**

If α and β are the zeroes of the polynomial $x^2 + x - 2$, then find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$.

Previously asked in: 2024 30/4/1 Q29(b) (OR-2)

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q49. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial**[1]**

If the zeroes of a polynomial $p(x)$ are -3 and 8 , then $p(x)$ equals

- (A) $x^2 + 5x - 4$
 (B) $(x + 3)(-x + 8)$
 (C) $a(x^2 + 5x - 24)$
 (D) $x^2 - 24$

Previously asked in: 2026 30/5/1 Q3

◆ Polynomials

2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q50. § 2.4 Summary

[1]

The number of quadratic polynomials having zeroes -5 and -3 is

- A 1
- B 2
- C 3
- D more than 3

Previously asked in: 2023 30/6/1 Q3

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q51. § 2.4 Summary

[1]

If α and β are the zeroes of the polynomial $x^2 - 1$, then the value of $(\alpha + \beta)$ is

- A 2
- B 1
- C -1
- D 0

Previously asked in: 2023 30/6/1 Q6

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q52. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[1]

If α and β are the zeroes of polynomial $3x^2 + 6x + k$ such that $\alpha + \beta + \alpha\beta = \frac{8}{3}$, then the value of k is:

- A 8
- B -8
- C 4
- D -4

Previously asked in: 2025 30/1/1 Q1

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

Q53. § 2.3 Relationship between Zeroes and Coefficients of a Polynomial § 2.4 Summary

[3]

Obtain the zeroes of the polynomial $7x^2 + 18x - 9$. Hence, write a polynomial each of whose zeroes is twice the zeroes of given polynomial.

Previously asked in: 2025 30/5/1 Q27

◆ **Polynomials** 2.3 Relationship between Zeroes and Coefficients of a Polynomial 4.3 Solution of a Quadratic Equation by Factorisation

Q54. § 4.5 Summary

[1]

The ratio of the sum and product of the roots of the quadratic equation $5x^2 - 6x + 21 = 0$ is :

- A 5 : 21
- B 2 : 7
- C 21 : 5
- D 7 : 2

Previously asked in: 2024 30/5/1 Q5

◆ **Quadratic Equations** 2.3 Relationship between Zeroes and Coefficients of a Polynomial

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