

Maths — real board questions: practice sheet

Every question is from a past Bihar Board board paper; the year is shown with each.

Section A: 20 MCQs × 1 mark

Section B: 16 questions

Answer key: last page

Section A — Multiple-choice questions

- $(3 - 2\sqrt{5})^2 =$ [Bihar Board 2026]
(A) $29 - 12\sqrt{5}$ (B) $29 + 12\sqrt{5}$ (C) 29 (D) -11
- Zeros of the polynomial $x^2 + 7x + 10$ are [Bihar Board 2026]
(A) $-2, -5$ (B) 2, 5 (C) $-2, 5$ (D) 2, -5
- If the sum and difference of two numbers are 14 and 4 respectively then their product is [Bihar Board 2026]
(A) 45 (B) 48 (C) 54 (D) 36
- Discriminant of the quadratic equation $5x^2 - 6x - 2 = 0$ is [Bihar Board 2026]
(A) 66 (B) 76 (C) 73 (D) 72
- $11 + 12 + 13 + \dots + 45 =$ [Bihar Board 2026]
(A) 970 (B) 980 (C) 990 (D) 1080
- If $\Delta ABC \sim \Delta DEF$ and $AB/DE = 3/5$ then $FD/CA =$ [Bihar Board 2026]
(A) $9 : 25$ (B) $25 : 9$ (C) $3 : 5$ (D) $5 : 3$
- The point $(-6, 4)$ is located in which quadrant? [Bihar Board 2026]
(A) First (B) Second (C) Third (D) Fourth
- $\sin 29^\circ / \cos 61^\circ =$ [Bihar Board 2026]
(A) 90 (B) 0 (C) 1 (D) 32
- If the length of the shadow of a tree is equal to its height then angle of elevation of the sun is [Bihar Board 2026]
(A) 30° (B) 45° (C) 60° (D) 75°
- If two circles touch each other externally then what is the number of common tangents? [Bihar Board 2026]
(A) 1 (B) 2 (C) 3 (D) 4
- Perimeter of semicircle is [Bihar Board 2026]
(A) πr (B) $2\pi r$ (C) $\pi r + 2r$ (D) $\pi r + r$
- The volume of a sphere of radius R is [Bihar Board 2026]
(A) $\frac{1}{3} \pi R^3$ (B) $4 \pi R^3$ (C) $\frac{4}{3} \pi R^3$ (D) πR^3
- The mode of 2, 6, 4, 5, 0, 1, 3, 2 is [Bihar Board 2026]
(A) 1 (B) 2 (C) 3 (D) 4
- The probability of a sure event is [Bihar Board 2026]
(A) 0 (B) less than 1 (C) more than 1 (D) 1
- If in division algorithm $a = bq + r$, $a = 72$, $b = 9$ then $r =$ [Bihar Board 2026]
(A) 8 (B) -8 (C) 0 (D) 1
- Sum of the zeroes of the polynomial $6x^2 - 7x - 3$ is [Bihar Board 2026]
(A) $-7/6$ (B) $7/6$ (C) $-1/2$ (D) $1/2$
- A solution of linear equation $x + 2y - 7 = 0$ is [Bihar Board 2026]
(A) $x = 1, y = 5$ (B) $x = 2, y = 4$ (C) $x = 1, y = 3$ (D) $x = -1, y = -3$
- The discriminant of the quadratic equation $x^2 - 3x + 2 = 0$ is [Bihar Board 2026]
(A) 17 (B) 27 (C) 1 (D) 5
- If 3, x, y and 15 are in A.P. then $x + y =$ [Bihar Board 2026]
(A) 9 (B) 18 (C) 27 (D) 36
- Which of the following options is not a Pythagorean triplet? [Bihar Board 2026]
(A) 12, 35, 37 (B) 28, 45, 53 (C) 16, 63, 65 (D) 17, 61, 69



Model answers to Section B, mark by mark — with Medha Ma'am on MedhaSetu:
medhasetu.com/bseb

Questions from the chapter pages on medhasetu.com, taken from Bihar Board's real papers. Key as per the board.

Maths

Section B — Questions asked more than once (answer in your notebook)

21. Prove that $1/\sqrt{2}$ is an irrational number. [2017, 2020, 2022 • 2 marks]
22. Prove that $6 + \sqrt{2}$ is an irrational number. [2022, 2026 • 2 marks]
23. Using Euclid's division algorithm find the H.C.F. of 135 and 225. [2025, 2026 • 2 marks]
24. Find the H.C.F. and L.C.M. of 24 and 36 using prime factorisation. [2017, 2023 • 2 marks]
25. Using Euclid's division algorithm, find the HCF of 252 and 1540. [2020, 2022 • 2 marks]
26. Find the zeroes of the polynomial $3x^2 - x - 4$. [2020, 2022 • 2 marks]
27. Find the solution of the equations $8x + 5y = 9$ and $3x + 2y = 4$ by cross-multiplication method. [2020, 2022 • 2 marks]
28. Find two consecutive positive integers, sum of whose squares is 365. [2022, 2025 • 2 marks]
29. Find the nature of the roots of the quadratic equation $4x^2 - 5x + 3 = 0$. [2020, 2022 • 2 marks]
30. If the sum of two natural numbers is 27 and their product is 182, then find the numbers. [2020, 2022 • 2 marks]
31. If 5th and 9th terms of an A.P. are 43 and 79 respectively, find the A.P. [2022, 2025 • 2 marks]
32. ABC is an isosceles triangle whose angle C is right angle. Prove that $AB^2 = 2AC^2$. [2020, 2023 • 2 marks]
33. Prove that the points (5, -2), (6, 4) and (7, -2) are the vertices of an isosceles triangle. [2022, 2026 • 2 marks]
34. Find the coordinates of a point on the y-axis which is equidistant from the points (- 5, - 2) and (3, 2). [2020, 2023 • 2 marks]
35. Find the area of a quadrant of a circle whose circumference is 22 cm. [2017, 2022, 2023 • 2 marks]
36. If the radius of a circle is 21 cm and central angle of the sector is 120 degree then find the area of the sector. [2022, 2026 • 2 marks]



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Maths — Answer key — Section A

Teachers: for checking after a class test. Students: solve first, then compare.

1. A	2. A	3. A	4. B	5. B	6. D	7. B	8. C	9. B	10. C
11. C	12. C	13. B	14. D	15. C	16. B	17. C	18. C	19. B	20. D

Score: 1 mark per correct answer. Got one wrong? Go back to that chapter before ticking "Practised" on your tracker. Section B model answers — on MedhaSetu, with Medha Ma'am.



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