

Quadratic equation questions with answers

15 exam-shaped questions with full worked solutions.

For IBPS · SBI · SSC · Railway quant.

Free, share it forward. Every question in this set was generated and verified by the ComputePrep engine — the same one behind the free daily timed drill at **computeprep.com**.

The questions

Work them on paper first. Full solutions start after question 15 — the numbering matches.

QUESTION 1

Solve both equations and state the relation between x and y .

I. $x^2 - 4x + 3 = 0$ II. $y^2 - 10y + 24 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 2

Solve both equations and state the relation between x and y .

I. $x^2 - 12x + 36 = 0$ II. $y^2 - 5y + 4 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 3

Solve both equations and state the relation between x and y .

I. $x^2 + 13x + 42 = 0$ II. $y^2 + 10y + 24 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 4

Solve both equations and state the relation between x and y .

I. $x^2 - 8x + 16 = 0$ II. $y^2 + 6y - 7 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 5

Solve both equations and state the relation between x and y.

I. $x^2 - 11x + 24 = 0$ II. $y^2 - 20y + 96 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 6

Solve both equations and state the relation between x and y.

I. $2x^2 - 2x - 4 = 0$ II. $y^2 + 3y + 2 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 7

Solve both equations and state the relation between x and y.

I. $x^2 - 20x + 100 = 0$ II. $y^2 - 11y + 30 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 8

Solve both equations and state the relation between x and y.

I. $x^2 - 9x + 18 = 0$ II. $y^2 - 18y + 80 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 9

Solve both equations and state the relation between x and y.

I. $x^2 - 6x + 8 = 0$ II. $y^2 - 4 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 10

Solve both equations and state the relation between x and y.

I. $x^2 + 20x + 99 = 0$ II. $y^2 + 17y + 72 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
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QUESTION 11

Solve both equations and state the relation between x and y.

I. $x^2 - 5x + 4 = 0$ II. $y^2 + 7y + 12 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 12

Solve both equations and state the relation between x and y.

I. $3x^2 - 18x + 24 = 0$ II. $y^2 + 5y = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 13

Solve both equations and state the relation between x and y.

I. $x^2 - 18x + 80 = 0$ II. $y^2 - 14y + 48 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 14

Solve both equations and state the relation between x and y.

I. $x^2 - 8x + 12 = 0$ II. $y^2 - 19y + 90 = 0$

- A. $x > y$
 - B. $x < y$
 - C. $x \geq y$
 - D. $x \leq y$
 - E. $x = y$ or no relation can be established
-

QUESTION 15

Solve both equations and state the relation between x and y .

I. $x^2 - 22x + 121 = 0$ II. $y^2 - 14y + 45 = 0$

A. $x > y$

B. $x < y$

C. $x \geq y$

D. $x \leq y$

E. $x = y$ or no relation can be established

Answers and worked solutions

Each walkthrough is the engine's own elimination order, step for step — not a reconstruction written after the fact.

SOLUTION 1

Answer: $x < y$

1. Factorise I: $x^2 - 4x + 3 = 0 \rightarrow (x - 3)(x - 1) = 0$, so $x = 1$ and 3 .
 2. Factorise II: $y^2 - 10y + 24 = 0 \rightarrow (y - 4)(y - 6) = 0$, so $y = 4$ and 6 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x (3) is still below the smallest y (4), so $x < y$.
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SOLUTION 2

Answer: $x > y$

1. Factorise I: $x^2 - 12x + 36 = 0 \rightarrow (x - 6)(x - 6) = 0$, so $x = 6$ (twice).
 2. Factorise II: $y^2 - 5y + 4 = 0 \rightarrow (y - 4)(y - 1) = 0$, so $y = 1$ and 4 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (6) still beats the largest y (4), so $x > y$.
-

SOLUTION 3

Answer: $x \leq y$

1. Factorise I: $x^2 + 13x + 42 = 0 \rightarrow (x + 7)(x + 6) = 0$, so $x = -7$ and -6 .
 2. Factorise II: $y^2 + 10y + 24 = 0 \rightarrow (y + 6)(y + 4) = 0$, so $y = -6$ and -4 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x equals the smallest y (-6), and every other x is smaller — so $x \leq y$, not $x < y$.
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SOLUTION 4

Answer: $x > y$

1. Factorise I: $x^2 - 8x + 16 = 0 \rightarrow (x - 4)(x - 4) = 0$, so $x = 4$ (twice).
 2. Factorise II: $y^2 + 6y - 7 = 0 \rightarrow (y - 1)(y + 7) = 0$, so $y = -7$ and 1 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (4) still beats the largest y (1), so $x > y$.
-

SOLUTION 5

Answer: $x \leq y$

1. Factorise I: $x^2 - 11x + 24 = 0 \rightarrow (x - 3)(x - 8) = 0$, so $x = 3$ and 8 .
 2. Factorise II: $y^2 - 20y + 96 = 0 \rightarrow (y - 8)(y - 12) = 0$, so $y = 8$ and 12 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x equals the smallest y (8), and every other x is smaller — so $x \leq y$, not $x < y$.
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SOLUTION 6

Answer: $x \geq y$

1. Factorise I: $2x^2 - 2x - 4 = 0 \rightarrow 2(x + 1)(x - 2) = 0$, so $x = -1$ and 2 .
2. Factorise II: $y^2 + 3y + 2 = 0 \rightarrow (y + 2)(y + 1) = 0$, so $y = -2$ and -1 .
3. Compare every x against every y — one pair is never enough.
4. The smallest x equals the largest y (-1), and every other x is larger — so $x \geq y$, not $x > y$.

SOLUTION 7Answer: $x > y$

1. Factorise I: $x^2 - 20x + 100 = 0 \rightarrow (x - 10)(x - 10) = 0$, so $x = 10$ (twice).
 2. Factorise II: $y^2 - 11y + 30 = 0 \rightarrow (y - 6)(y - 5) = 0$, so $y = 5$ and 6 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (10) still beats the largest y (6), so $x > y$.
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SOLUTION 8Answer: $x < y$

1. Factorise I: $x^2 - 9x + 18 = 0 \rightarrow (x - 3)(x - 6) = 0$, so $x = 3$ and 6 .
 2. Factorise II: $y^2 - 18y + 80 = 0 \rightarrow (y - 8)(y - 10) = 0$, so $y = 8$ and 10 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x (6) is still below the smallest y (8), so $x < y$.
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SOLUTION 9Answer: $x \geq y$

1. Factorise I: $x^2 - 6x + 8 = 0 \rightarrow (x - 2)(x - 4) = 0$, so $x = 2$ and 4 .
 2. Factorise II: $y^2 - 4 = 0 \rightarrow (y + 2)(y - 2) = 0$, so $y = -2$ and 2 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x equals the largest y (2), and every other x is larger — so $x \geq y$, not $x > y$.
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SOLUTION 10Answer: $x \leq y$

1. Factorise I: $x^2 + 20x + 99 = 0 \rightarrow (x + 11)(x + 9) = 0$, so $x = -11$ and -9 .
 2. Factorise II: $y^2 + 17y + 72 = 0 \rightarrow (y + 9)(y + 8) = 0$, so $y = -9$ and -8 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x equals the smallest y (-9), and every other x is smaller — so $x \leq y$, not $x < y$.
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SOLUTION 11Answer: $x > y$

1. Factorise I: $x^2 - 5x + 4 = 0 \rightarrow (x - 1)(x - 4) = 0$, so $x = 1$ and 4 .
 2. Factorise II: $y^2 + 7y + 12 = 0 \rightarrow (y + 4)(y + 3) = 0$, so $y = -4$ and -3 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (1) still beats the largest y (-3), so $x > y$.
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SOLUTION 12Answer: $x > y$

1. Factorise I: $3x^2 - 18x + 24 = 0 \rightarrow 3(x - 2)(x - 4) = 0$, so $x = 2$ and 4 .
 2. Factorise II: $y^2 + 5y = 0 \rightarrow (y - 0)(y + 5) = 0$, so $y = -5$ and 0 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (2) still beats the largest y (0), so $x > y$.
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SOLUTION 13Answer: $x \geq y$

1. Factorise I: $x^2 - 18x + 80 = 0 \rightarrow (x - 8)(x - 10) = 0$, so $x = 8$ and 10 .
2. Factorise II: $y^2 - 14y + 48 = 0 \rightarrow (y - 6)(y - 8) = 0$, so $y = 6$ and 8 .
3. Compare every x against every y — one pair is never enough.
4. The smallest x equals the largest y (8), and every other x is larger — so $x \geq y$, not $x > y$.

SOLUTION 14

Answer: $x < y$

1. Factorise I: $x^2 - 8x + 12 = 0 \rightarrow (x - 2)(x - 6) = 0$, so $x = 2$ and 6 .
 2. Factorise II: $y^2 - 19y + 90 = 0 \rightarrow (y - 9)(y - 10) = 0$, so $y = 9$ and 10 .
 3. Compare every x against every y — one pair is never enough.
 4. The largest x (6) is still below the smallest y (9), so $x < y$.
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SOLUTION 15

Answer: $x > y$

1. Factorise I: $x^2 - 22x + 121 = 0 \rightarrow (x - 11)(x - 11) = 0$, so $x = 11$ (twice).
 2. Factorise II: $y^2 - 14y + 45 = 0 \rightarrow (y - 5)(y - 9) = 0$, so $y = 5$ and 9 .
 3. Compare every x against every y — one pair is never enough.
 4. The smallest x (11) still beats the largest y (9), so $x > y$.
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One round a day beats one set a month.

A worked set teaches the shape; a clock teaches the speed. ComputePrep serves a free timed round every day, with a streak, a leaderboard and the full walkthrough after every round.

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