ComputePrep

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 ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 6

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

I. $4x^2 - 11x + 7 = 0$ II. $4y^2 - 15y + 14 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 7

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

I. $x^2 - 21x + 104 = 0$ II. $y^2 - 11y + 24 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 8

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

I. $x^2 - 15x + 56 = 0$ II. $y^2 - 18y + 80 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 9

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

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

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 10

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

I. $x^2 - 1x - 6 = 0$ II. $y^2 + 8y + 12 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 11

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

I. $x^2 + 5x + 6 = 0$ II. $y^2 + 15y + 56 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 12

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

I. $4x^2 - 7x - 2 = 0$ II. $4y^2 - 21y + 27 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 13

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

I. $x^2 - 16x + 60 = 0$ II. $y^2 - 10y + 24 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 14

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

I. $x^2 - 16x + 63 = 0$ II. $y^2 - 12y + 35 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or no relation can be established

QUESTION 15

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

I. $x^2 - 24x + 144 = 0$ II. $y^2 - 10y + 9 = 0$

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.

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 ≤ 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 ≤ y, not x < y.

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 ≤ 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 ≤ y, not x < y.

SOLUTION 6

Answer: **x ≤ y**

1. Factorise I: $4x^2 - 11x + 7 = 0 \rightarrow (x - 1)(4x - 7) = 0$, so x = 1 and 7/4.
2. Factorise II: $4y^2 - 15y + 14 = 0 \rightarrow (4y - 7)(y - 2) = 0$, so y = 7/4 and 2.
3. Compare every x against every y — one pair is never enough.
4. The largest x equals the smallest y (7/4), and every other x is smaller — so x ≤ y, not x < y.

SOLUTION 7

Answer: **x ≥ y**

1. Factorise I: $x^2 - 21x + 104 = 0 \rightarrow (x - 8)(x - 13) = 0$, so x = 8 and 13.
2. Factorise II: $y^2 - 11y + 24 = 0 \rightarrow (y - 3)(y - 8) = 0$, so y = 3 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 ≥ y, not x > y.

SOLUTION 8

Answer: **x ≤ y**

1. Factorise I: $x^2 - 15x + 56 = 0 \rightarrow (x - 7)(x - 8) = 0$, so x = 7 and 8.
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 equals the smallest y (8), and every other x is smaller — so x ≤ y, not x < y.

SOLUTION 9

Answer: **x ≤ y**

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

SOLUTION 10

Answer: **x ≥ y**

1. Factorise I: $x^2 - 1x - 6 = 0 \rightarrow (x + 2)(x - 3) = 0$, so x = -2 and 3.
2. Factorise II: $y^2 + 8y + 12 = 0 \rightarrow (y + 6)(y + 2) = 0$, so y = -6 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 ≥ y, not x > y.

SOLUTION 11

Answer: **x > y**

1. Factorise I: $x^2 + 5x + 6 = 0 \rightarrow (x + 3)(x + 2) = 0$, so x = -3 and -2.
2. Factorise II: $y^2 + 15y + 56 = 0 \rightarrow (y + 8)(y + 7) = 0$, so y = -8 and -7.
3. Compare every x against every y — one pair is never enough.
4. The smallest x (-3) still beats the largest y (-7), so x > y.

SOLUTION 12

Answer: **x < y**

1. Factorise I: $4x^2 - 7x - 2 = 0 \rightarrow (x - 2)(4x + 1) = 0$, so x = -1/4 and 2.
2. Factorise II: $4y^2 - 21y + 27 = 0 \rightarrow (4y - 9)(y - 3) = 0$, so y = 9/4 and 3.
3. Compare every x against every y — one pair is never enough.
4. The largest x (2) is still below the smallest y (9/4), so x < y.

SOLUTION 13

Answer: **x ≥ y**

1. Factorise I: $x^2 - 16x + 60 = 0 \rightarrow (x - 6)(x - 10) = 0$, so x = 6 and 10.
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 smallest x equals the largest y (6), and every other x is larger — so x ≥ y, not x > y.

SOLUTION 14

Answer: **x ≥ y**

1. Factorise I: $x^2 - 16x + 63 = 0 \rightarrow (x - 7)(x - 9) = 0$, so x = 7 and 9.
2. Factorise II: $y^2 - 12y + 35 = 0 \rightarrow (y - 5)(y - 7) = 0$, so y = 5 and 7.
3. Compare every x against every y — one pair is never enough.
4. The smallest x equals the largest y (7), and every other x is larger — so x ≥ y, not x > y.

SOLUTION 15

Answer: **x > y**

1. Factorise I: $x^2 - 24x + 144 = 0 \rightarrow (x - 12)(x - 12) = 0$, so x = 12 (twice).
2. Factorise II: $y^2 - 10y + 9 = 0 \rightarrow (y - 9)(y - 1) = 0$, so y = 1 and 9.
3. Compare every x against every y — one pair is never enough.
4. The smallest x (12) still beats the largest y (9), so x > y.

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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