



QUADRATIC INEQUALITY

In the following questions, two equations numbered I and II are given. You have to solve both the equations and –
Give answer (a) If $x > y$
Give answer (b) If $x \geq y$
Give answer (c) If $x < y$
Give answer (d) If $x \leq y$
Give answer (e) If $x = y$ or the relationship cannot be established.

Q1. I. $x^2 + 3x - 40 = 0$
II. $y^2 - 14y + 48 = 0$

Q2. I. $x^2 + 11x + 30 = 0$
II. $y^2 + 12y + 36 = 0$

Q3. I. $x^2 + x - 2 = 0$
II. $y^2 + 5y + 6 = 0$

Q4. I. $x^2 - 7x + 10 = 0$
II. $y^2 + 8y + 15 = 0$

Q5. I. $x^2 + 11x + 30 = 0$
II. $y^2 + 19y + 90 = 0$

Q6. I. $x^2 + 9x + 20 = 0$
II. $y^2 - 7y + 12 = 0$

Q7. I. $x^2 + 10x + 16 = 0$
II. $y^2 - 12y + 32 = 0$

Q8. I. $5x^2 - 21x + 22 = 0$
II. $3y^2 + 26y + 16 = 0$

Q9. I. $x^2 - x - 1 = 0$
II. $20y^2 - y - 12 = 0$

Q10. I. $3x^2 - 4x - 32 = 0$
II. $3y^2 - 19y - 14 = 0$

Q11. I. $2x^2 - 21x + 54 = 0$
II. $y^2 - 14y + 49 = 0$

Q12. I. $x^2 - 20x + 75 = 0$
II. $2y^2 - 17y + 35 = 0$

Q13. I. $12x^2 - 38x + 30 = 0$
II. $20y^2 - 58y + 42 = 0$

Q14. I. $x^2 - 12x + 35 = 0$
II. $2y^2 - 22y + 56 = 0$

Q15. I. $5x^2 - 87x + 378 = 0$
II. $3y^2 - 49y + 200 = 0$

Q16. I. $\sqrt{x} - \frac{\sqrt{6}}{\sqrt{x}} = 0$

II. $y^3 - 6^{\frac{3}{2}} = 0$

Q17. I. $225x^2 - 4 = 0$
II. $\sqrt{225x} + 2 = 0$

Q18. I. $\sqrt{x+6} = \sqrt{121} - \sqrt{36}$
II. $y^2 + 112 = 473$

Q19. I. $17x + 13^2 - 114 = 15^2$
II. $\sqrt{121}y^2 + 6^3 = 260$

Q20. I. $4x^2 = 49$
II. $y = \sqrt{\frac{49}{4}}$



Q21. I. $\sqrt{784}x + 1234 = 1486$
II. $\sqrt{1089}y + 2081 = 2345$

Q22. I. $4x + 5y = 19$
II. $5x + 4y = 8$

Q23. I. $6x + 7y = 15$
II. $7x + 6y = 14$

Q24. I. $3x + y = 18$
II. $x - 3y = 5$

Q25. I. $2x + 3y + z = 17$
II. $3x + 2y + z = 16$

ANSWER KEY

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|-------|-------|-------|-------|-------|-------|
| 1. c | 2. b | 3. b | 4. a | 5. a | 6. c |
| 7. c | 8. a | 9. e | 10. e | 11. c | 12. b |
| 13. b | 14. e | 15. a | 16. e | 17. b | 18. b |
| 19. a | 20. d | 21. a | 22. c | 23. c | 24. a |
| 25. c | | | | | |