QUADRATIC EQUATION

Directions: In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer.

1. **I. $x^3 - 4913 = 0$**

II. $y^2 - 361 = 0$

A. if x < y
B. if x ≤ y
C. if x > y
D. if x ≥ y
E. if x = y or relationship between x and y can't be established

2. **I. $x^2 = 361$**

II. $y^3 = 7269 + 731$

A. if x < y
B. if x > y
C. if x ≥ y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

3. **I. $15x^2 + x - 6 = 0$**

II. $5y^2 - 23y + 12 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

4. **I. $x^3 - 2744 = 0$**

II. $y^2 - 256 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

5. **I. $x^2 - 8x - 20 = 0$**

II. $3y^2 - 60y + 297 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

6. **I. $2x^2 + 9x + 7 = 0$**

II. $y^2 + 4y + 4 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

7. **I. $x^2 - 7x + 12 = 0$**

II. $3y^2 - 11y + 10 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

8. **I. $2x^2 + 15x + 28 = 0$**

II. $2y^2 + 13y + 21 = 0$

A. if x > y
B. if x ≥ y
C. if x < y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

9. **I. $x^2 - 8x + 15 = 0$**

II. $y^2 - 12y + 36 = 0$

A. if x > y
B. if x ≥ y
C. if x < y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

10. **I. $x^2 + 9x + 20 = 0$**

II. $y^2 = 16$

A. if x > y
B. if x ≥ y
C. if x < y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

11. I. $x^2 + (343)^{1/3} = 56$
II. $(y)^{4/3} \times (y)^{5/3} - 295 = 217$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

12. I. 5x + 4y = 8
II. 3x + 2y = 4
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

13. I. $x^2 + 8 = 6x$
II. $y^2 + 15 = 8y$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

14. I. $\sqrt{49} + \sqrt{15} = \sqrt{169}$
II. $y^2 - 212 = 364$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

15. I. $x^2 - \frac{(10)^{5/2}}{\sqrt{x}} = 0$
II. $\frac{18}{\sqrt{y}} - \sqrt{y} = \frac{7}{\sqrt{y}}$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

16. I. $2x^2 + 7x + 5 = 0$
II. $3y^2 + 5y + 2 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

17. I. $2x^2 - 13x + 21 = 0$
II. $3y^2 - 14y + 15 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x ≤ y or no relationship can be established between x and y.

18. I. $2x^2 - 13x + 18 = 0$
II. $y^2 - 7y + 12 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

19. I. $x^2 + 6x + 9 = 0$
II. $y^2 - y - 20 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

20. I. $3x^2 - 10x + 8 = 0$
II. $2y^2 - 19y + 35 = 0$

A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

21. **I. $x^2 - 3 = 2x$**
II. $y^2 + 5y + 6 = 0$
A. if x > y
B. if x < y
C. if x ≥ y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

22. **I. $x^2 - 25x + 114 = 0$**
II. $y^2 - 10y + 24 = 0$
A. if x > y
B. if x < y
C. if x ≥ y
D. if x ≤ y
E. if x = y or relationship between x and y can't be established

23. **I. $\frac{}{\sqrt{x}} + \frac{6}{\sqrt{x}} = 5\sqrt{\ }$**
II. $y^2 + \sqrt{256} = \sqrt{625}$
A. if x > y
B. if x < y
C. if x ≤ y
D. if x = y or relationship between x and y can't be established

24. **I. $x^2 - 7\sqrt{3}x + 36 = 0$**
II. $y^2 - 11\sqrt{3}y + 84 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

25. **I. $x^2 = 361$**
II. $y^3 = 7269 + 731$
A. if x > y
B. if x ≤ y
C. if x < y
D. if x ≥ y
E. if x = y or relationship between x and y can't be established

26. **I. $x^2 + 5x + 6 = 0$**
II. $y^2 - 4y - 12 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x = y or relationship between x and y can't be established
E. if x < y

27. **I. $25x^2 - 90x + 72 = 0$**
II. $y^2 + 26y + 168 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

28. **I. $3x^2 - 8x - 16 = 0$**
II. $3y^2 - 19y + 28 = 0$
A. if x > y
B. if x ≤ y
C. if x ≥ y
D. if x < y
E. if x = y or relationship between x and y can't be established

29. **I. $12x^2 - 4x - 5 = 0$**
II. $8y^2 - 4y - 4 = 0$
A. if x > y
B. if x < y
C. if x = y
D. if x ≥ y
E. if x ≤ y or no relationship can be established between x and y.

30. **I. $6x^2 - 13x - 44 = 0$**
II. $4y^2 - 17y - 42 = 0$
A. if x > y
B. if x ≤ y

C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

31. **I. $3x + 5y = 34.5$**
II. $4x - 9y = -1$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

32. **I. $35x^2 + 4x - 63 = 0$**
II. $7y^2 - 4y - 20 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

33. **I. $x^2 - 1089 = 0$**
II. $3y^2 - 363 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

34. **I. $x^2 - 4\sqrt{7}x + 21 = 0$**
II. $2y^2 - 8\sqrt{5}y - 50 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

35. **I. $3x^2 - 8x - 16 = 0$**
II. $3y^2 - 19y + 28 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

36. **I. $3x^2 - 5x - 12 = 0$**
II. $2y^2 + 15y + 25 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

37. **I. $12x^2 - 4x - 5 = 0$**
II. $8y^2 - 4y - 4 = 0$
A. if $x > y$
B. if $x < y$
C. if $x = y$
D. if $x \geq y$
E. if $x \leq y$ or no relationship can be established between x and y.

38. **I. $2x + 3y = 77$**
II. $3x + 5y = 124$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

39. **I. $x^2 - 4(\sqrt{2} + \sqrt{5})x + 16\sqrt{10} = 0$**
II. $y^2 - 5(\sqrt{3} + 2\sqrt{2})y + 50\sqrt{6} = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

40. **I. $x^2 - 4\sqrt{3}x + 9 = 0$**
II. $y^2 - \sqrt{3}y - 18 = 0$
A. if $x > y$
B. if $x \leq y$
C. if $x \geq y$
D. if $x < y$
E. if $x = y$ or relationship between x and y can't be established

41. **I. $x^2 - 9x + 20 = 0$**

II. $2y^2 - 15y + 28 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

42. **I. $x^2 - x - 20 = 0$**

II. $y^2 + y - 30 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

43. **I. $x^2 - 9x + 18 = 0$**

II. $y^2 - 9\sqrt{2}y + 36 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

44. **I. $x^2 - 9 = 0$**

II. $2y^2 + 13y + 21 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

45. **I. $5x^2 + 11x - 12 = 0$**

II. $4y^2 - 13y - 12 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

46. **I. $x^2 + 16x + 63 = 0$**

II. $y^2 + 13y + 42 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

47. **I. $2x^2 + 3x - 20 = 0$**

II. $2y^2 + 15y + 28 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

48. **I. $x^2 - 13.5x + 38 = 0$**

II. $y^2 - 1.5y - 10 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

49. **I. $x^2 + 11x + 30 = 0$**

II. $y^2 + y - 20 = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

50. **I. $4x^2 - 216 = 0$**

II. $5y^3 - 810\sqrt{6} = 0$

A. if x > y

B. if x ≤ y

C. if x ≥ y

D. if x < y

E. if x = y or relationship between x and y can't be established

ANSWERS

1	2	3	4	5	6	7	8	9	10
E	A	B	E	E	E	A	D	C	D
11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
D	D	E	E	D	B	C	E	E	D
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
A	C	D	B	A	B	A	E	E	E
31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
A	E	E	E	E	A	E	D	E	E
41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
C	E	E	C	E	B	E	C	B	B