Quadratic Equation Memory – Based Questions Asked in IBPS RRB PO / Clerk (Eng)

Directions (1-73): Following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give answer as,

1.

I). $x^2 - 24x + 135 = 0$

II). $y^2 - 45y + 450 = 0$

A. $x > y$

B. $x < y$

C. $x \leq y$

D. $x \geq y$

E. x = y or the relation cannot be established

2.

I). $x^2 - 14x - 176 = 0$

II). $y^2 + 12y - 189 = 0$

A. $x < y$

B. $x \geq y$

C. x = y or relationship can't be determined.

D. $x \leq y$

E. $x > y$

3.

I). $x^2 + 21x - 270 = 0$

II). $y^2 - 34y + 225 = 0$

A. $x \leq y$

B. x ≥ y

C. x < y

D. x = y or relationship can't be determined

E. x > y

4.

I). $6x + 5y = 8$

II). $3x + 2y = 3$

A. x ≥ y

B. x > y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

5.

I). $x^2 - 6x - 55 = 0$

II). $y^2 - 26y + 165 = 0$

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 cannot be determined

6.

I). $(x - 2)(x - 5) + 2 = 0$

II). $y^2 - 11y + 28 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

7.

I). $x^2 - 4x - 60 = 0$

II). $y^2 - 25y + 156 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

8.

I). $(x/y) - (x/35) = 1/7$

II). $y = \sqrt{256} + \sqrt{144}$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

9.

I). $x^3 = 2744$

II). $y^2 - 196 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

10.

I). $x^2 - 28x + 192 = 0$

II). $y^2 - 21y + 110 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

11.

I) $4x^2 - 27x + 35 = 0$

II) $y^2 - 5y + 6 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

12.

I) $x^2 - 5x - 104 = 0$

II) $y^2 + 23y + 120 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

13.

I) $3x^2 + x - 24 = 0$

II) $2y^2 - 25y + 78 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

14.

I) $5x^2 + 17x + 14 = 0$

II) $y^2 + 11y + 24 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

15.

I) $x^2 - 8x + 15 = 0$

II) $y^2 - 22y + 85 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

16.

I) $2x^2 - 17x + 36 = 0$

II) $y^2 - 6y + 9 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

17.

I) $4x^2 + 12x + 9 = 0$

II) $3y^2 + 7y + 4 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

18.

I) $x^2 + 13x + 42 = 0$

II) $y^2 + 23y + 132 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

19.

I) $3x^2 – 13x + 14 = 0$

II) $5y^2 – 16y + 11 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

20.

I) $x^2 – x – 110 = 0$

II) $y^3 = 1331$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

21.

I) $x^2 + 13x + 36 = 0$

II) $y^2 – 3y – 28 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or relationship can't be determined.

22.

I) $x^2 - 15x + 56 = 0$

II) $y^2 – 11y + 30 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or relationship can't be determined

23.

I) $x^2 - 18x + 80 = 0$

II) $y^2 + 41 = 105$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or relationship can't be determined.

24.

I) $3x^2 – 5x – 22 = 0$

II) $y^2 + 3y – 40 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or relationship can't be determined.

25.

I) $2x^2 + 9x + 10 = 0$

II) $y^2 + 8y + 15 = 0$

A. x > y

B. x < y

C. x ≥ y

D. x ≤ y

E. x = y or relationship can't be determined.

26.

I) $x^2 + 7x – 120 = 0$

II) $y^2 – 2y – 63 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

27.

I) $5x + 2y = 32$

II) $5y + x = 34$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

28.

I) $3x^2 + 19x + 30 = 0$

II) $y^2 + 13y + 40 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

29.

I) $x^2 – 10x + 24 = 0$

II) $y^2 – 14y + 48 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

30.

I) $2x^2 – 9x + 10 = 0$

II) $3y^2 – 2y – 8 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

31.

I) $x^2 – 30x + 221 = 0$

II) $y^2 – 23y + 132 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

32.

I)x^2– 20x + 100 = 0

II) y^2 + 5y – 150 = 0

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

33.

I)x^2+ 30x + 221 = 0

II) y^2 + 25y + 156 = 0

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

34.

I) $2x^2$- 32x + 126 = 0

II) y^2 – 19y + 88 = 0

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

35.

I)x^2- 16x + 60 = 0

II) y^2 - 11y + 30 = 0

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

36.

I: x^2 +11x +30=0

II: y^2 +16y +63= 0

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. x = y or Relationship between x and y cannot be determined

37.

I: x^2 - 5x – 24 = 0

II: y^2 - 17y + 72 = 0

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. x = y or Relationship between x and y cannot be determined

38.

I: $2x^2$ - 11x +14 = 0

II: y^2 - 7y + 12 = 0

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. x = y or Relationship between x and y cannot be determined

39.

I: $3x^2 + 13x + 12 = 0$

II: $3y^2 - 14y + 16 = 0$

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. x = y or Relationship between x and y cannot be determined

40.

I: $x^2 + 5x - 14 = 0$

II: $2y^2 - 19y + 42 = 0$

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. x = y or Relationship between x and y cannot be determined

41.

I. $x^2 - 15x + 54 = 0$

II. $y^2 - 4y - 117 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

42.

I) $x^2 - 5x - 204 = 0$

II) $y^2 + 27y + 180 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

43.

I) $x^2 + 2x - 99 = 0$

II) $y^2 - 19y + 90 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

44.

I) $x^2 + x - 182 = 0$

II) $y^2 + 31y + 240 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

45.

I) $2x^2 - 13x + 20 = 0$

II) $y^2 - 17y + 52 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

46.

I) $x^2 - 40x + 384 = 0$

II) $y^2 - 26y = -168$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

47.

I) $x^2 = 25$

II) $y^4 = 625$

A. x > y

B. x ≥ y

C .x = y or relationship can't be determined.

D. x < y

E. x ≤ y

48.

I) $2x^2 - 8x + 6 = 0$

II) $y^2 - 6y + 9 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

49.

I) $6x^2 - 13x + 6 = 0$

II) $y^2 - 9y + 18 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

50.

I) $x^2 - 16x - 36 = 0$

II) $y^2 - 12y - 45 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

51.

I) $5x^2 + 12x + 7 = 0$

II) $5y^2 - 11y + 6 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

52.

I) $x^2 + 14x + 33 = 0$

II) $y^2 - 7x - 30 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

53.

I) $x^2 – 5x – 14 = 0$

II) $y^2 – 16y + 64 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

54.

I) $x^2 + x – 12 = 0$

II) $y^2 + 2y – 15 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

55.

I) $x^2 – 9x + 20 = 0$

II) $y^2 – 7y + 12 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

56.

I) $x^2 + 9x + 20 = 0$

II) $8y^2 – 15y + 7 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

57.

I) $x^2 – 7x + 10 = 0$

II) $y^2 + 8y + 15 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

58.

I) $x^2 - 5x + 6 = 0$

II) $y^2 – 12y + 27 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

59.

I) $x^2 = 16$

II) $y^2 – 8y + 16 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

60.

I) $3x^2 – 18x + 24 = 0$

II) $y^2 - 9y + 18 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

61.

I) $x^2 - 27x + 180 = 0$

II) $y^2 - 23y + 132 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

62.

I) $x^2 - 32x + 192 = 0$

II) $y^2 - 50y + 625 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

63.

I) $x^3 = -343$

II) $y^2 + 17y + 72 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

64.

I) $x^2 + 9x - 190 = 0$

II) $y^2 - 24y + 143 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

65.

I) $3x^2 + 14x + 16 = 0$

II) $4y^2 + 13y + 10 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

66.

I) $x^2 - 3x - 54 = 0$

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

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

67.

I) $x^2 - 19x + 78 = 0$

II) $y^2 + 9y - 70 = 0$

A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

68.
I) $x^2 - 10x + 24 = 0$
II) $y^2 - 18y + 45 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

69.
I) $3x^2 - 16x + 20 = 0$
II) $y^2 + 3y - 10 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

70.
I) $x^2 - 19x + 84 = 0$
II) $y^2 - 21y + 110 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

71.
I) $5x^2 - 19x + 18 = 0$
II) $y^2 - 8y + 12 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

72.
I) $x^2 - 31x + 228 = 0$
II) $y^2 - 15y + 56 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

73.
I) $x^2 + 12x + 32 = 0$
II) $y^2 + 5y + 6 = 0$
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

Directions (74-78): In each of the following questions, two equations are given. You have to solve both the equations to find the relation between x and y.

74.

I) $x^2 + 15x + 56 = 0$

II) $y^2 + 20y + 91 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

75.

I) $3x^2 - 36x = 0$

II) $y^2 + 14y + 33 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

76.

I) $x + 3y = 15$

II) $2x + y = 10$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

77.

I) $x^2 - 29x + 168 = 0$

II) $y^2 + 10y - 144 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

78.

I) $x^2 - 38x + 352 = 0$

II) $y^2 - 41y + 418 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

Directions (79-88): The following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give the answer as,

79.

I) $x^2 - 28x + 192 = 0$

II) $y^2 - 20y + 96 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

80.

I) $x^2 + 9x - 52 = 0$

II) $y^2 - 14y + 40 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

81.

I) $x^2 - 5x - 300 = 0$

II) $y^2 + 27y + 180 = 0$

A. x > y

B. x ≥ y

C. x < y

D. x ≤ y

E. x = y or relationship can't be determined.

82.

I) $x^2 + 13x + 42 = 0$

II) $y^2 + 18y + 80 = 0$

A. x > y

B. x ≥ y

C. x < y

D. x ≤ y

E. x = y or relationship can't be determined.

83.

I) $x^2 + 4x - 45 = 0$

II) $y^2 - 17y + 60 = 0$

A. x > y

B. x ≥ y

C. x < y

D. x ≤ y

E. x = y or relationship can't be determined.

84.

I). $x^2 - 12x + 32 = 0$

II). $y^2 - 13y + 36 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

85.

I). $4x^2 - 16x + 15 = 0$

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

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

86.

I). $x^2 - 14x + 45 = 0$

II). $y^2 + 3y - 40 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

87.

I). $x^2 - 19x + 88 = 0$

II). $y^2 - 23y + 132 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

88.

I). $x^2 + 10x + 9 = 0$

II). $y^2 + 24y + 140 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

Directions (89-98): In each of the following questions, two equations are given. You have to solve both the equations to find the relation between x and y.

89.

I)$x^2 – 7x – 368 = 0$

II) $y^2 + 2y – 575 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

90.

I) $x^2 + 26x – 120 = 0$

II)$y^2 – 26y + 88 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

91.

I) $x^2 + 35x + 306 = 0$

II) $y^2 + 40y + 391 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

92.

I) $x^2 – 32x + 252 = 0$

II) $y^2 – 20y + 84 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

93.

I) 2x + 3y = 73

II) x + 3y = 59

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

94.

I). $x^2 = 196$

II). $y^2 + 2y – 48 = 0$

A. x < y

B. x > y

C. $x \leq y$

D. $x \geq y$

E. Relationship between x and y cannot be determined

95.

I). $x^3 = 6859$

II). $y^3 = 3375$

A. $x < y$

B. $x > y$

C. $x \leq y$

D. $x \geq y$

E. Relationship between x and y cannot be determined

96.

I). $2x^2 + 19x + 42 = 0$

II). $4y^2 + 43y + 30 = 0$

A. $x < y$

B. $x > y$

C. $x \leq y$

D. $x \geq y$

E. Relationship between x and y cannot be determined

97.

I). $72 - 30x = -2x^2$

II). $y^2 - 40/6 = 7/3$

A. $x < y$

B. $x > y$

C. $x \leq y$

D. $x \geq y$

E. Relationship between x and y cannot be determined

98.

I). $2x^2 - x - 1 = 0$

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

A. $x < y$

B. $x > y$

C. $x \leq y$

D. $x \geq y$

E. Relationship between x and y cannot be determined

Directions (99-151): The following questions contain two equations as I and II. You have to solve both equations and determine the relationship between them and give the answer as,

99.

I). $x^2 + 5x - 126 = 0$

II). $y^2 - 22y + 117 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. $x < y$

E. $x \leq y$

100.

I). $3x^2 - 5x - 12 = 0$

II). $2y^2 - 21y + 54 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

101.

I). $x^2 - 22x + 105 = 0$

II). $y^2 - 24y + 128 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

102.

I). $2x^2 – 28x + 96 = 0$

II). $y^2 – 22y + 120 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

103.

I). $x^2 - x - 20 = 0$

II). $y^2 - 9y - 22 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

104.

I) $2x^2 – 9x + 10 = 0$

II) $3y^2 + 4y – 20 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

105.

I) $x^2 + 13x + 40 = 0$

II) $y^2 – 21y + 108 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

106.

I) $x^2 – 2x – 63 = 0$

II) $y^2 + y – 132 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

107.

I) $3x + y = 53$

II) $2x – 3y = 6$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

108.

I) $4x^2 – x – 14 = 0$

II) $5y^2 – 21 + 22 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

109.

I) $2x^2 – 13x + 20 = 0$

II) $4y^2 – 18y + 20 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

110.

I) $x^2 – 4x – 117 = 0$

II) $y^2 + y – 72 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

111.

I) $5x^2 – 18x + 16 = 0$

II) $y^2 – 5y + 6 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

112.

I) $2x + 3y = 36$

II) $5x – 2y = 14$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

113.

I) $x^2 – 24x + 128 = 0$

II) $y^2 – 15y + 54 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

114.

I) $x^2 – 14x + 48 = 0$

II) $y^2 – 7y + 12 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

115.

I. $x^2 - 23x + 90 = 0$

II. $y^2 + 2y - 24 = 0$

A. x ≥ y

B. x ≤ y

C. x < y

D. x = y or the relation cannot be established.

E. x > y

116.

I. $11x^2 + 20x + 9 = 0$

II. $y^2 + 7y + 12 = 0$

A. x > y

B. x ≥ y

C. x < y

D. x = y or the relation cannot be established.

E. x ≤ y

117.

I. $x^2 + 3x - 40 = 0$

II. $y^2 - 17y + 60 = 0$

A. x > y

B. x ≥ y

C. x ≤ y

D. x = y or the relation cannot be established.

E. x < y

118.

I. $x^2 + 21x + 104 = 0$

II. $y^2 + 17y + 66 = 0$

A. x > y

B. x ≥ y

C. x < y

D. x = y or the relation cannot be established.

E. x ≤ y

119.

I. $x^2 - 20x + 96 = 0$

I. $y^2 - 14y + 48 = 0$

A. x > y

B. x ≥ y

C. x ≤ y

D. x < y

E. x = y or the relation cannot be established.

120.

I) $x^2 + 28x + 192 = 0$

II) $y^2 + 19y + 84 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

121.

I) $x^2 - x - 110 = 0$

II) $y^2 + 14y + 45 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

122.

I) $x^2 + 15x + 56 = 0$

II) $y^2 – 20y + 91 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

123.

I) $x^2 – 20x + 99 = 0$

II) $y^2 = 81$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

124.

I) $x^2 – 25x + 156 = 0$

II) $5y^2 + 4y - 12 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

125.

I). $5x^2 – 26x + 33 = 0$

II). $2y^2 – 15y + 27 = 0$

A. x < y

B. x > y

C. x ≥ y

D. x ≤ y

E. Relationship between x and y cannot be determined

126.

I). $3x^2 - 8x + 4 = 0$

II). $5y^2 - 18y + 16 = 0$

A. Relationship between x and y cannot be determined

B. x > y

C. x ≤ y

D. x ≥ y

E. x < y

127.

I). $x^2 – 13x + 42 = 0$

II). $y^2 - 9y + 20 = 0$

A. x < y

B. x > y

C. x ≤ y

D. x ≥ y

E. Relationship between x and y cannot be determined

128.

I). $3x^2 – 23x + 40 = 0$

II). $6y^2 + y - 2 = 0$

A. x < y

B. x ≤ y

C. x > y

D. x ≥ y

E. Relationship between x and y cannot be determined

129.

I). $3x^2 + 14x + 8 = 0$

II). $2y^2 – 17y + 36 = 0$

A. Relationship between x and y cannot be determined

B. x > y

C. x ≤ y

D. x ≥ y

E. x < y

130.

I). $x^2 - 24x + 140 = 0$

II). $y^2 – 44y + 420 = 0$

A. x < y

B. x > y

C. x = y or relationship can't be determined.

D. x ≤ y

E. x ≥ y

131.

I). $x^2 – 81 = 0$

II). $y^3 = 64$

A. x < y

B. x ≥ y

C. x ≤ y

D. x = y or relationship can't be determined.

E. x > y

132.

I). $3x^2 - 40x + 112 = 0$

II). $3y^2 + 58y + 280 = 0$

A. x ≤ y

B. x > y

C. x < y

D. x = y or relationship can't be determined.

E. x ≥ y

133.

I). $8x + 11y = 14$

II). $4x + 5y = 6$

A. x ≥ y

B. x > y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

134.

I). $x^2 + 12x - 160 = 0$

II). $y^2 - 21y + 110 = 0$

A. x ≥ y

B. x < y

C. x > y

D. x ≤ y

E. x = y or relationship can't be determined.

135.

I). $x^2 - 30x + 224 = 0$

II). $y^2 - 20y + 84 = 0$

A. x = y or relationship can't be determined

B. x > y

C. x ≤ y

D. x ≥ y

E. x < y

136.

I). $2x^2 + 9x - 243 = 0$

II). $2y^2 - 57y + 405 = 0$

A. x < y

B. x > y

C. x = y or relationship can't be determined

D. x ≥ y

E. x ≤ y

137.

I). $x^2 - 46x + 480 = 0$

II). $y^2 + 12y – 64 = 0$

A. x < y

B. x = y or relationship can't be determined.

C. x > y

D. x ≤ y

E. x ≥ y

138.

I). $x^2 = 49$

II). $(y + 7)^2 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

139.

I). $x^2 + 5x – 84 = 0$

II). $y^2 – 15y + 56 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

140.

I). $4x^2 + 5x + 1 = 0$

II). $2y^2 + 5y + 3 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

141.

I). $x^2 – 10x + 24 = 0$

II). $3y^2 – 14y + 16 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

142.

I). $x^2 + 11x – 126 = 0$

II). $3y^2 – 22y + 35 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. $x \leq y$

143.

I). $x^2 - 16x + 60 = 0$

II). $y^2 - 22y + 121 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. $x < y$

E. $x \leq y$

144.

I). $x^2 - 3x + 2 = 0$

II). $10y^2 - 13y + 4 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. $x < y$

E. $x \leq y$

145.

I). $x^2 - 45x + 500 = 0$

II). $y^2 - 38y + 360 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. $x < y$

E. $x \leq y$

146.

I). $x^2 - 20x + 100 = 0$

II). $y^2 = 121$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined

D. $x < y$

E. $x \leq y$

147.

I) $x^2 - 11x + 30 = 0$

II) $2y^2 - 13y + 20 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined.

D. $x < y$

E. $x \leq y$

148.

I) $x^2 + 23x + 132 = 0$

II) $y^2 + 11y + 28 = 0$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined.

D. $x < y$

E. $x \leq y$

149.

I) $3x + y = 25$

II) $2y + x = 25$

A. $x > y$

B. $x \geq y$

C. x = y or relationship can't be determined.

D. $x < y$

E. $x \leq y$

150.

I) $x^2 - 13x + 36 = 0$

II) $2y^2 + y - 36 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

151.

I) $x^2 + 16x + 63 = 0$

II) $y^2 - 5y - 84 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

Directions (152-156): In each of the following questions, two equations are given. You have to solve both the equations to find the relation between x and y.

152.

I). $5x^2 - 14x - 55 = 0$

II). $4y^2 - 2y - 56 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

153.

I). $10x - 7y + 16 = 0$

II). $3x - 4y + 1 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

154.

I). $x^2 - 30x + 81 = 0$

II). $3y^2 - 9y + 6 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

155.

I). $x^4 - 1356 = 1045$

II). $y^3 + 183 = 526$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

156.

I). $3x^2 - 25x + 52 = 0$

II). $2y^2 - 23y + 65 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y
E. x ≤ y

Directions (157-166): The following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give the answer as,

157.
I). x^2- 16x + 63 = 0
II). y^2- 14y + 45 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

158.
I). x^2+ 29x + 120 = 0
II). y^2 – 13y – 90 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

159.
I). x^4= 4096
II). y^2+17y + 72 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

160.
I). $5x^2$– 25x + 30 = 0
II). y^2 - 11y + 30 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

161.
I). x^2– x - 6 = 0
II). y^2 + 5y + 6 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

162.
I). x^2- 23x + 126 = 0
II). y^2 + y - 156 = 0
A. x > y
B. x ≥ y
C. x = y or relationship can't be determined.
D. x < y
E. x ≤ y

163.
I). x^2– 32x + 252 = 0

II). $y^2 – 37y + 342 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

164.

I). $x^2 - 14x + 48 = 0$

II). $y^2 – 9y + 20 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

165.

I). $x^2 – 5x - 24 = 0$

II). $y^2 – 6y –27 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

166.

I). $x^2 + 18x + 80 = 0$

II). $y^2 + 19y + 90 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x ≤ y

Directions (167-171): In each of the following questions, two equations are given. You have to solve both the equations to find the relation between x and y.

167.

I). $x^2 – 26x + 88 = 0$

II). $y^2 + 28y + 96 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

168.

I). $x^2 – 37x – 78 = 0$

II). $y^2 + 43y + 82 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

169.

I). $x^2 + 2x – 120 = 0$

II). $y^2 – 12y + 20 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

170.

I). $x^2 + 27x + 182 = 0$

II). $y^2 - 4y - 252 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

171.

I). $x + y = 11$

II). $4x + 3y = 39$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

Directions (172-175): The following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give the answer as,

172.

I) $x^2 – 17x + 70 = 0$

II) $y^2 – 20y + 91 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

173.

I) $x^2 – 18x + 81 = 0$

II) $y^2 – 12x + 32 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

174.

I) $x^2 = 196$

II) $y = \sqrt{196} – 4$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

175.

I) $4x^2 – 17x + 18 = 0$

II) $5y^2 – 19y + 18 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

Directions (176-184): The following question contains two equations as I and II. You have to solve both equations and determine the relationship between them and give the answer as,

176.

I) $x^2 + 4x - 5 = 0$

II) $3y^2 - 8y + 5 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

177.

I) $x^2 - 12x + 35 = 0$

II) $y^2 - 6y + 8 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

178.

I) $3x^2 + 10x + 8 = 0$

II) $y^2 + 19y + 34 = 0$

A. x > y

B. x ≥ y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

179.

I). $x^2 - 34x + 288 = 0$

II). $2y^2 - 51y + 280 = 0$

A. x ≤ y

B. x > y

C. x = y or relationship can't be determined.

D. x < y

E. x ≥ y

180.

I). $3x^2 - 41x + 136 = 0$

II). $3y^2 + 5y - 68 = 0$

A. x > y

B. x ≥ y

C. x ≤ y

D. x = y or relationship can't be determined.

E. x < y

181.

I). $2x^2 + 57x + 370 = 0$

II). $2y^2 - 51y + 310 = 0$

A. x ≤ y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x > y

182.

I). $x - \sqrt{256} = 0$

II). $y^3 - 72 = 144$

A. x ≥ y

B. x > y

C. x = y or relationship can't be determined

D. x < y

E. x ≤ y

183.

I). 6x + 9y = 27

II). 4x + 3y = 15

A. x ≤ y

B. x ≥ y

C. x = y or relationship can't be determined.

D. x < y

E. x > y

184.

I). x^2 + 19x - 330 = 0

II). y^2 - 40y + 364 = 0

A. x < y

B. x ≥ y

C. x = y or the relationship between x and y cannot be determined

D. x > y

E. x ≤ y

Directions (185-190): In each of the following questions are given. You have to solve both the questions are given. You have to solve both the equations to find the relation between x and y.

185.

I) $5x^2+6x-27=0$

II) $y^2-19y+60=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

186.

I) $x^2-9x-136=0$

II) $y^2+23y+120=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

187.

I) $x^2-14x+48=0$

II) $2y^2+3y-77=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

188.

I) $x^2+13x+40=0$

II) $y^2+17y+60=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

189.

I) $2x^2+13x+20=0$

II) $y^2-25y+84=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

190.

I) $x^2+21x+80=0$

II) $y^2-8y-65=0$

A. x > y

B. x ≥ y

C. x = y (or) relationship can't be determined.

D. x < y

E. x ≤ y

ANSWER WITH EXPLANATION

1. Answer: C

From I,

$x^2 - 24x + 135 = 0$

$x^2 - 9x - 15x + 135 = 0$

$x(x - 9) - 15(x - 9) = 0$

$(x - 9)(x - 15) = 0$

$x = 9, 15$

From II,

$y^2 - 45y + 450 = 0$

$y^2 - 15y - 30y + 450 = 0$

$y(y - 15) - 30(y - 15) = 0$

$(y - 15)(y - 30) = 0$

$y = 15, 30$

Hence, x ≤ y

2. Answer: C

From I,

$x^2 - 14x - 176 = 0$

$x^2 + 8x - 22x - 176 = 0$

$x(x + 8) - 22(x + 8) = 0$

$(x - 22)(x + 8) = 0$

$x = 22, -8$

From II,

$y^2 + 12y - 189 = 0$

$y^2 + 21y - 9y - 189 = 0$

$y(y + 21) - 9(y + 21) = 0$

$(y - 9)(y + 21) = 0$

$y = +9, -21$

Hence, x = y or relationship can't be determined.

3. Answer: A

$x^2 + 21x - 270 = 0$

$x^2 + 30x - 9x - 270 = 0$

$x(x + 30) - 9(x + 30) = 0$

$(x - 9)(x + 30) = 0$

$x = +9, -30$ b

$y^2 - 34y + 225 = 0$

$y^2 - 25y - 9y + 225 = 0$

$y(y - 25) - 9(y - 25) = 0$

$(y - 9)(y - 25) = 0$

$y = +9, +25$

Hence, x ≤ y

4. Answer: D

$6x + 5y = 8$ .....(1)

$3x + 2y = 3$.....(2)

(2) * 2 => $6x + 4y = 6$ .....(3)

From (1) & (3)

y = 2

y = 2 sub in (2)

3x + 2(2) = 3

3x + 4 = 3

3x = 3 - 4

x = - 1 / 3

Hence, x < y

5. Answer: C

From I

x^2 - 6x - 55=0

x^2+ 5x – 11x - 55 =0

x(x + 5) – 11(x + 5)=0

(x - 11) (x + 5)=0

x = + 11 , - 5

From II

y^2 - 26y + 165=0

y^2 - 15y – 11y + 165=0

y(y - 15) – 11(y - 15)=0

(y - 11) (y - 15)=0

y = + 11 , + 15

Hence ,x ≤ y

6. Answer: E

(x – 2) (x – 5) + 2 = 0

x^2 – 5x – 2x + 10 + 2 = 0

x^2 – 7x + 12 = 0

x^2 – 4x – 3x + 12 = 0

x(x – 4) – 3(x – 4) = 0

x = 3, 4

y^2 – 11y + 28 = 0

y^2 – 7y – 4y + 28 = 0

y(y – 7) – 4(y – 7) = 0

y = 7, 4

x ≤ y

7. Answer: D

x^2- 4x – 60 = 0

x^2 – 10x + 6x – 60 = 0

x(x – 10) + 6(x – 10) = 0

x = -6, 10

y^2 – 25y + 156 = 0

y^2 – 12y – 13y + 156 = 0

y(y – 12) – 13(y – 12) = 0

y = 12, 13

x < y

8. Answer: D

y = √256 + √144 = 16 + 12 = 28

(x/28) – (x/35) = 1/7

(5x – 4x)/140 = 1/7

x = 20

x < y

9. Answer: B

x^3 = 2744

x = 14

y^2- 196 = 0

y = 14,-14

x ≥ y

Relationship can't be determined

10. Answer: A

x^2 – 28x + 192 =0

x^2 – 16x – 12x + 192 = 0

x(x – 16) – 12(x – 16) = 0

$x = 12, 16$

$y^2 – 21y + 110 = 0$

$y^2 – 11y – 10y + 110 = 0$

$y(y – 11) – 10(y – 11) = 0$

$y = 10, 11$

x > y

11. Answer: C

$4x^2 – 27x + 35 = 0$

$4x^2 – 20x – 7x + 35 = 0$

$4x(x – 5) – 7(x – 5) = 0$

$x = + 5, + 7/4$

$y^2 – 5y + 6 = 0$

$y^2 – 3y – 2y + 6 = 0$

$y(y – 3) – 2(y – 3) = 0$

$y = + 3, + 2$

The relationship can't be determined

12. Answer: B

$x^2 – 5x – 104 = 0$

$x^2 – 13x + 8x – 104 = 0$

$x(x – 13) + 8(x – 13) = 0$

$x = + 13, - 8$

$y^2 + 23y + 120 = 0$

$y^2 + 15y + 8y + 120 = 0$

$y(y + 15) + 8(y + 15) = 0$

$y = - 15, - 8$

Hence, $x \geq y$

13. Answer: D

$3x^2 + x – 24 = 0$

$3x^2 + 9x – 8x – 24 = 0$

$3x(x + 3) – 8(x + 3) = 0$

$x = - 3, + 8/3$

$2y^2 – 25y + 78 = 0$

$2y^2 – 12y – 13y + 78 = 0$

$2y(y – 6) – 13(y – 6) = 0$

$y = + 6, + 13/2$

Hence, $x < y$

14. Answer: A

$5x^2 + 17x + 14 = 0$

$5x^2 + 10x + 7x + 14 = 0$

$5x(x + 2) + 7(x + 2) = 0$

$x = - 2, - 7/5$

$y^2 + 11y + 24 = 0$

$y^2 + 3y + 8y + 24 = 0$

$y(y + 3) + 8(y + 3) = 0$

$y = - 3, - 9$

Hence, $x > y$

15. Answer: E

$x^2 – 8x + 15 = 0$

$x^2 – 5x – 3x + 15 = 0$

$x(x – 5) – 3(x – 5) = 0$

$x = + 5, + 3$

$y^2 – 22y + 85 = 0$

$y^2 – 17y – 5y + 85 = 0$

$y(y – 17) – 5(y – 17) = 0$

$y = + 17, + 5$

Hence, $x \leq y$

16. Answer: A

$2x^2 – 17x + 36 = 0$

$2x^2 – 8x – 9x + 36 = 0$

$2x(x – 4) – 9(x – 4) = 0$

$x = +4, +9/2$

$y^2 - 6y + 9 = 0$

$y^2 - 3y - 3y + 9 = 0$

$y(y - 3) - 3(y - 3) = 0$

$y = +3, +3$

x > y

17. Answer: D

$4x^2 + 12x + 9 = 0$

$4x^2 + 6x + 6x + 9 = 0$

$4x(x + 6/4) + 6(x + 6/4) = 0$

$x = -3/2, -3/2$

$3y^2 + 7y + 4 = 0$

$3y^2 + 3y + 4y + 4 = 0$

$3y(y + 1) + 4(y + 1) = 0$

$y = -1, -4/3$

x < y

18. Answer: A

$x^2 + 13x + 42 = 0$

$x^2 + 7x + 6x + 42 = 0$

$x(x + 7) + 6(x + 7) = 0$

$x = -6, -7$

$y^2 + 23y + 132 = 0$

$y^2 + 12y + 11y + 132 = 0$

$y(y + 12) + 11(y + 12) = 0$

$y = -11, -12$

x > y

19. Answer: C

$3x^2 - 13x + 14 = 0$

$3x^2 - 6x - 7x + 14 = 0$

$3x(x - 2) - 7(x - 2) = 0$

$x = +2, +7/3$

$5y^2 - 16y + 11 = 0$

$5y^2 - 5y - 11y + 11 = 0$

$5y(y - 1) - 11(y - 1) = 0$

$y = +11/5, +1$

Relationship can't be determined

20. Answer: E

$x^2 - x - 110 = 0$

$x^2 - 11x + 10x - 110 = 0$

$x(x - 11) + 10(x - 11) = 0$

$x = +11, -10$

$y^3 = 1331$

$y = +11$

x ≤ y

21. Answer: D

$x^2 + 13x + 36 = 0$

$x^2 + 9x + 4x + 36 = 0$

$x(x + 9) + 4(x + 9) = 0$

$x = -9, -4$

$y^2 - 3y - 28 = 0$

$y^2 - 7y + 4y - 28 = 0$

$y(y - 7) + 4(y - 7) = 0$

$y = +7, -4$

Hence, x ≤ y

22. Answer: A

$x^2 - 15x + 56 = 0$

$x^2 - 8x - 7x + 56 = 0$

$x(x - 8) - 7(x - 8) = 0$

$x = +8, +7$

$y^2 - 11y + 30 = 0$

$y^2 – 6y – 5y + 30 = 0$

$y(y – 6) – 5(y – 6) = 0$

$y = + 6, + 5$

Hence, $x > y$

23. Answer: C

$x^2 - 18x + 80 = 0$

$x^2 – 10x – 8x + 80 = 0$

$x(x – 10) – 8(x – 10) = 0$

$x = + 10, + 8$

$y^2 + 41 = 105$

$y^2 = 64$

$y = ± 8$

Hence, $x ≥ y$

24. Answer: E

$3x^2 – 5x – 22 = 0$

$3x^2 + 6x - 11x – 22 = 0$

$3x(x + 2) – 11(x + 2) = 0$

$x = - 2, + 11/3$

$x = - 2, + 3.67$

$y^2 + 3y – 40 = 0$

$y^2 + 8y – 5y – 40 = 0$

$y(y + 8) – 5(y + 8) = 0$

$y = - 8, + 5$

The relationship can’t be determined

25. Answer: A

$2x^2 + 9x + 10 = 0$

$2x^2 + 4x + 5x + 10 = 0$

$2x(x + 2) + 5(x + 2) = 0$

$x = - 2, - 5/2$

$x = - 2, - 2.5$

$y^2 + 8y + 15 = 0$

$y^2 + 5y + 3y + 15 = 0$

$y(y + 5) + 3(y + 5) = 0$

$y = - 5, - 3$

Hence, $x > y$

26. Answer: C

$x^2 + 7x – 120 = 0$

$x^2 + 15x – 8x – 120 = 0$

$x(x + 15) – 8(x + 15) = 0$

$x = - 15, + 8$

$y^2 – 2y – 63 = 0$

$y^2 – 9y + 7y – 63 = 0$

$y(y – 9) + 7(y – 9) = 0$

$y = + 9, - 7$

The relationship can’t be determined

27. Answer: D

$5x + 2y = 32$ ---(1)

$5y + x = 34$ ---(2)

From (1) and (2),

$5x + 2y = 32$

$- 5x - 25y = - 170$

$23y = 138$

$y = 6$

$x = 34 – 5 * 6$

$x = 4$

$x < y$

28. Answer: A

$3x^2 + 19x + 30 = 0$

$3x^2 + 9x + 10x + 30 = 0$

$3x(x + 3) + 10(x + 3) = 0$

$x = -3, -10/3$

$x = -3, -3.33$

$y^2 + 13y + 40 = 0$

$y^2 + 8y + 5y + 40 = 0$

$y(y + 8) + 5(y + 8) = 0$

$y = -8, -5$

Hence, $x > y$

29. Answer: E

$x^2 – 10x + 24 = 0$

$x^2 – 6x – 4x + 24 = 0$

$x(x – 6) – 4(x – 6) = 0$

$x = +6, +4$

$y^2 – 14y + 48 = 0$

$y^2 – 8y – 6y + 48 = 0$

$y(y – 8) – 6(y – 8) = 0$

$y = +8, +6$

Hence, $x \leq y$

30. Answer: B

$2x^2 – 9x + 10 = 0$

$2x^2 – 4x – 5x + 10 = 0$

$2x(x – 2) – 5(x – 2) = 0$

$x = +2, +5/2$

$x = +2, +2.5$

$3y^2 – 2y – 8 = 0$

$3y^2 – 6y + 4y – 8 = 0$

$3y(y – 2) + 4(y – 2) = 0$

$y = +2, -4/3$

$y = +2, -1.33$

Hence, $x \geq y$

31. Answer: A

$x^2 – 30x + 221=0$

$x^2 – 13x – 17x + 221 = 0$

$x(x – 13) – 17(x – 13) = 0$

$(x – 17)(x – 13) = 0$

$x = 17, 13$

$y^2 – 23y + 132=0$

$y^2 – 11y – 12y + 132 = 0$

$y(y -11) – 12(y – 11) = 0$

$(y – 12)(y – 11) = 0$

$y = 12, 11$

$x > y$

32. Answer: B

$x^2 – 20x + 100 = 0$

$x^2 – 10x – 10x + 100 = 0$

$x(x – 10) – 10(x – 10) = 0$

$(x – 10)(x – 10) = 0$

$x = 10, 10$

$y^2 + 5y – 150 = 0$

$y^2 + 15y – 10y – 150 = 0$

$y(y + 15) – 10(y + 15) = 0$

$(y – 10)(y + 15) = 0$

$y = 10, -15$

$x \geq y$

33. Answer: E

$x^2 + 30x + 221 = 0$

$x^2 + 17x + 13x + 221 = 0$

$x(x + 17) + 13(x + 17) = 0$

$x = -17, -13$

$y^2 + 25y + 156 = 0$

$y^2 + 12y + 13y + 156 = 0$

$y(y + 12) + 13(y + 12) = 0$

y = -12, -13

x ≤ y

34. Answer: C

$2x^2 - 32x + 126 = 0$

$2x^2 – 14x – 18x + 126 = 0$

$2x(x – 7) – 18(x – 7) = 0$

x = 9, 7

$y^2 – 19y + 88 = 0$

$y^2 – 11y – 8y + 88 = 0$

$y(y – 11) – 8(y – 11) = 0$

y = 8, 11

Relationship between x and y cannot be established.

35. Answer: B

$x^2 - 16x + 60 = 0$

$x^2 – 10x – 6x + 60 = 0$

$x(x – 10) – 6(x – 10) = 0$

x = 6, 10

$y^2 - 11y + 30 = 0$

$y^2 – 5y – 6y + 30 = 0$

$y(y – 5) – 6(y – 5) = 0$

y = 5, 6

x ≥ y

36. Answer: B

$x^2 +11x +30 =0$

$x^2 +6x +5x +30 = 0$

$x(x+6) +5(x+6) = 0$

$(x+5) (x+6) = 0$

x= -5, -6

$y^2 +16y +63= 0$

$y^2 +9y +7y +63=0$

$y(y+9) +7(y+9) =0$

$(y+9) (y+7) =0$

y= -9, -7

Hence, x > y

37. Answer: C

$x^2 -5x -24= 0$

$x^2 -8x + 3x - 24= 0$

$x(x-8) +3(x - 8) = 0$

$(x-8) (x+3) = 0$

x= +8, -3

$y^2 -17y +72 = 0$

$y^2 -9y -8y + 72 = 0$

$y(y-9) -8(y-9) = 0$

$(y-9) (y-8) =0$

y= 9, 8

Hence, x ≤ y

38. Answer: E

$2x^2 -11x +14= 0$

$2x^2 -4x -7x +14= 0$

$2x(x-2) -7(x - 2) = 0$

$(2x-7) (x-2) = 0$

x= +2, +7/2

$y^2 -7y +12 = 0$

$y^2 -4y -3y + 12 = 0$

$y(y-4) -3(y-4) = 0$

$(y-4) (y-3) =0$

y= 4, 3

Hence, Relationship between x and y cannot be determined

39. Answer: A

$3x^2 + 13x + 12 = 0$

$\Rightarrow 3x^2 + 9x + 4x + 12 = 0$

$\Rightarrow 3x(x+3) + 4(x+3) = 0$

$= (3x+4)(x+3) = 0$

$\Rightarrow x = -4/3, -3$

$3y^2 - 14y + 16 = 0$

$\Rightarrow 3y^2 - 6y - 8y + 16 = 0$

$\Rightarrow 3y(y-2) - 8(y-2) = 0$

$\Rightarrow (y-2)(3y-8) = 0$

$\Rightarrow y = 2, 8/3$

Hence, $x < y$

40. Answer: A

$x^2 + 5x - 14 = 0$

$x^2 - 2x + 7x - 14 = 0$

$x(x-2) + 7(x-2) = 0$

$(x-2)(x+7) = 0$

$x = 2, -7$

$2y^2 - 19y + 42 = 0$

$2y^2 - 12y - 7y + 42 = 0$

$2y(y-6) - 7(y-6) = 0$

$(y-6)(2y-7) = 0$

$y = 6, 7/2$

Hence, $x < y$

41. Answer: C

$x^2 - 15x + 54 = 0$

$x^2 - 6x - 9x + 54 = 0$

$x(x-6) - 9(x-6) = 0$

$x = 6, 9$

$y^2 - 4y - 117 = 0$

$y^2 - 13y + 9y - 117 = 0$

$y(y-13) + 9(y-13) = 0$

$y = 13, -9$

Relationship between x and y cannot be established.

42. Answer: B

$x^2 - 5x - 204 = 0$

$x^2 - 17x + 12x - 204 = 0$

$x(x-17) + 12(x-17) = 0$

$x = 17, -12$

$y^2 + 27y + 180 = 0$

$y^2 + 12y + 15y + 180 = 0$

$y(y+12) + 15(y+12) = 0$

$y = -12, -15$

$x \geq y$

43. Answer: E

$x^2 + 2x - 99 = 0$

$x^2 + 11x - 9x - 99 = 0$

$x(x+11) - 9(x+11) = 0$

$x = 9, -11$

$y^2 - 19y + 90 = 0$

$y^2 - 9y - 10y + 90 = 0$

$y(y-9) - 10(y-9) = 0$

$y = 9, 10$

$x \leq y$

44. Answer: A

$x^2 + x - 182 = 0$

$x^2 + 14x - 13x - 182 = 0$

$x(x+14) - 13(x+14) = 0$

$x = 13, -14$

$y^2 + 31y + 240 = 0$

$y^2 + 16y + 15y + 240 = 0$

y(y + 16) + 15(y + 16) = 0

y = -16, -15

x > y

45. Answer: E

$2x^2$ - 13x + 20 = 0

$2x^2$ – 8x – 5x + 20 = 0

2x(x – 4) – 5(x – 4) = 0

x = 2.5, 4

y^2 - 17y + 52 = 0

y^2 – 13y – 4y + 52 = 0

y(y – 13) – 4(y – 13) = 0

y = 13, 4

x ≤ y

46. Answer: A

x^2 – 40x + 384 = 0

x^2 – 24x – 16x + 384 = 0

x(x – 24) – 16(x – 24) = 0

x = 24, 16

y^2 – 26y = -168

y^2 – 14y – 12y + 168 = 0

y(y – 14) – 12(y – 14) = 0

y = 14, 12

x > y

47. Answer: C

x^2 = 25

x = 5, -5

y^4 = 625

y = -5, 5

Relationship between x and y cannot be established.

48. Answer: E

$2x^2$ - 8x + 6 = 0

x^2 – 4x + 3 = 0

x^2 – 3x – x + 3 = 0

x(x – 3) – 1(x – 3) = 0

x = 1, 3

y^2 - 6y + 9 = 0

y^2 - 3y – 3y + 9 = 0

y(y – 3) – 3(y – 3) = 0

y = 3, 3

x ≤ y

49. Answer: D

$6x^2$ - 13x +6 = 0

$6x^2$ - 4x – 9x + 6 = 0

2x(3x – 2) – 3(3x – 2) = 0

x = 3/2, 2/3

y^2 - 9y + 18= 0

y^2 - 6y – 3y + 18 = 0

y(y – 6) – 3(y – 6) = 0

y = 6, 3

x < y

50. Answer: C

x^2 - 16x – 36 = 0

x^2 - 18x + 2x – 36 = 0

x(x – 18) + 2(x – 18) = 0

x = 18, -2

y^2- 12y – 45 = 0

y^2- 15y + 3y – 45 = 0

y(y – 15) + 3(y – 15) = 0

y = 15, -3

Relationship between x and y cannot be established.

51. Answer: D

$5x^2 + 12x + 7 = 0$

$5x^2 + 5x + 7x + 7 = 0$

$5x(x + 1) + 7(x + 1) = 0$

X = -1, -7/5

$5y^2 - 11y + 6 = 0$

$5y^2 - 6y – 5y + 6 = 0$

$5y(y – 1) – 6(y – 1) = 0$

y = 1, 6/5

x < y

52. Answer: E

$x^2 + 14x + 33 = 0$

$x^2 + 11x + 3x + 33 = 0$

$x(x + 11) + 3(x + 11) = 0$

x = -11, -3

$y^2 - 7x – 30 = 0$

$y^2 – 10x + 3x – 30 = 0$

$y(y – 10) + 3(x – 10) = 0$

y = 10, -3

x ≤ y

53. Answer: D

$x^2 – 5x – 14 = 0$

$x^2 – 7x + 2x – 14 = 0$

$x(x – 7) + 2(x – 7) = 0$

x =7, -2

$y^2 – 16y + 64 = 0$

$y^2 – 8y – 8y + 64 = 0$

$y(y – 8) – 8(y – 8) = 0$

y=8, 8

x < y

54. Answer: C

$x^2 + x – 12 = 0$

$x^2 + 4x – 3x – 12 = 0$

$x(x + 4) – 3(x + 4) = 0$

x = 3, -4

$y^2 + 2y – 15 = 0$

$y^2 + 5y – 3y – 15 = 0$

$y(y + 5) – 3(y + 5) = 0$

y = 3, -5

Relationship between x and y cannot be established.

55. Answer: B

$x^2 – 9x + 20 = 0$

$x^2 – 5x – 4x + 20 = 0$

$x(x – 5) – 4(x – 5) = 0$

x = 4, 5

$y^2 – 7y + 12 = 0$

$y^2 – 4y – 3y + 12 = 0$

$y(y – 4) – 3(y – 4) = 0$

y = 4, 3

x ≥ y

56. Answer: D

$x^2 + 9x + 20 = 0$

$x^2 + 4x + 5x + 20 = 0$

$x(x + 4) + 5(x + 4) = 0$

x = -4, -5

$8y^2 – 15y + 7 = 0$

$8y^2 – 7y – 8y + 7 = 0$

$8y(y – 1) -7(y – 1) = 0$

$y = 1, 7/8$

$x < y$

57. Answer: A

$x^2 – 7x + 10 = 0$

$x^2 – 5x – 2x + 10 = 0$

$x(x – 5) – 2(x – 5) = 0$

$x = 5, 2$

$y^2 + 8y + 15 = 0$

$y^2 + 5y + 3y + 15 = 0$

$y(y + 5) + 3(y + 5) = 0$

$y = -3, -5$

$x > y$

58. Answer: E

$x^2 - 5x + 6 = 0$

$x^2 – 2x – 3x + 6 = 0$

$x(x – 2) – 3(x – 2) = 0$

$x = 2, 3$

$y^2 – 12y + 27 = 0$

$y^2 – 9y – 3y + 27 = 0$

$y(y – 9) – 3(y – 9) = 0$

$y = 9, 3$

$x \leq y$

59. Answer: E

$x^2 = 16$

$x = 4, -4$

$y^2 – 8y + 16 = 0$

$y^2 – 4y – 4y + 16 = 0$

$y(y – 4) – 4(y – 4) = 0$

$y = 4, 4$

$x \leq y$

60. Answer: C

$3x^2 – 18x + 24 = 0$

$3x^2 – 12x – 6x + 24 = 0$

$3x(x – 4) – 6(x – 4) = 0$

$x = 4, 2$

$y^2 – 9y + 18 = 0$

$y^2 – 6y – 3y + 18 = 0$

$y(y – 6) – 3(y – 6) = 0$

$y = 6, 3$

Relationship between x and y cannot be established.

61. Answer: B

$x^2 – 27x + 180 = 0$

$x^2 – 12x – 15x + 180 = 0$

$x(x – 12) – 15(x – 12) = 0$

$x = 12, 15$

$y^2 – 23y + 132 = 0$

$y^2 – 12y – 11y + 132 = 0$

$y(y – 12) – 11(y – 12) = 0$

$y = 12, 11$

$x \geq y$

62. Answer: D

$x^2 – 32x + 192 = 0$

$x^2 – 24x – 8x + 192 = 0$

$x(x – 24) – 8(x – 24) = 0$

$x = 24, 8$

$y^2 – 50y + 625 = 0$

$y^2 – 25y – 25y + 625 = 0$

$y(y - 25) - 25(y - 25) = 0$

$y = 25, 25$

$x < y$

63. Answer: A

$x^3 = -343$

$x = -7$

$y^2 + 17y + 72 = 0$

$y^2 + 8y + 9y + 72 = 0$

$y(y + 8) + 9(y + 8) = 0$

$y = -8, -9$

$x > y$

64. Answer: D

$x^2 + 9x - 190 = 0$

$x^2 + 19x - 10x - 190 = 0$

$x(x + 19) - 10(x + 19) = 0$

$x = -19, +10$

$y^2 - 24y + 143 = 0$

$y^2 - 11y - 13y + 143 = 0$

$y(y - 11) - 13(y - 11) = 0$

$y = +11, +13$

Hence, $x < y$

65. Answer: E

$3x^2 + 14x + 16 = 0$

$3x^2 + 6x + 8x + 16 = 0$

$3x(x + 2) + 8(x + 2) = 0$

$x = -2, -8/3$

$4y^2 + 13y + 10 = 0$

$4y^2 + 8y + 5y + 10 = 0$

$4y(y + 2) + 5(y + 2) = 0$

$y = -2, -5/4$

Hence, $x \leq y$

66. Answer: B

$x^2 - 3x - 54 = 0$

$x^2 - 9x + 6x - 54 = 0$

$x(x - 9) + 6(x - 9) = 0$

$x = +9, -6$

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

$y^2 + 6y + 7y + 42 = 0$

$y(y + 6) + 7(y + 6) = 0$

$y = -6, -7$

Hence, $x \geq y$

67. Answer: A

$x^2 - 19x + 78 = 0$

$x^2 - 13x - 6x + 78 = 0$

$x(x - 13) - 6(x - 13) = 0$

$x = +13, +6$

$y^2 + 9y - 70 = 0$

$y^2 + 14y - 5y - 70 = 0$

$y(y + 14) - 5(y + 14) = 0$

$y = -14, +5$

Hence, $x > y$

68. Answer: C

$x^2 - 10x + 24 = 0$

$x^2 - 4x - 6x + 24 = 0$

$x(x - 4) - 6(x - 4) = 0$

$x = +4, +6$

$y^2 - 18y + 45 = 0$

$y^2 - 3y - 15y + 45 = 0$

$y(y - 3) - 15(y - 3) = 0$

$y = +3, +15$

The relationship can't be determined.

69. Answer: B

$3x^2 – 16x + 20 = 0$

$3x^2 – 10x – 6x + 20 = 0$

$x(3x – 10) – 2(3x – 10) = 0$

$x = 2, 10/3$

$y^2 + 3y – 10 = 0$

$y^2 + 5y – 2y – 10 = 0$

$y(y + 5) – 2(y + 5) = 0$

$y = 2, -5$

$x \geq y$

70. Answer: C

$x^2 – 19x + 84 = 0$

$x^2 – 12x – 7x + 84 = 0$

$x(x – 12) – 7(x – 12) = 0$

$x = 7, 12$

$y^2 – 21y + 110 = 0$

$y^2 – 11y – 10y + 110 = 0$

$y(y – 11) – 10(y – 11) = 0$

$y = 11, 10$

Relationship can't be determined

71. Answer: E

$5x^2 – 19x + 18 = 0$

$5x^2 – 10x – 9x + 18 = 0$

$5x(x – 2) – 9(x – 2) = 0$

$x = 9/5, 2$

$y^2 – 8y + 12 = 0$

$y^2 – 2y – 6y + 12 = 0$

$y(y – 2) – 6(y – 2) = 0$

$y = 6, 2$

$x \leq y$

72. Answer: A

$x^2 – 31x + 228 = 0$

$x^2 – 12x – 19x + 228 = 0$

$x(x – 12) – 19(x – 12) = 0$

$x = 12, 19$

$y^2 – 15y + 56 = 0$

$y^2 – 8y – 7y + 56 = 0$

$y(y – 8) – 7(y – 8) = 0$

$y = 8, 7$

$x > y$

73. Answer: D

$x^2 + 12x + 32 = 0$

$x^2 + 8x + 4x + 32 = 0$

$x(x + 8) + 4(x + 8) = 0$

$x = -8, -4$

$y^2 + 5y + 6 = 0$

$y^2 + 3y + 2y + 6 = 0$

$y(y + 3) + 2(y + 3) = 0$

$y = -2, -3$

74. Answer: C

$x^2 + 15x + 56 = 0$

$x^2 + 7x + 8x + 56 = 0$

$x(x + 7) + 8(x + 7) = 0$

$x = -7, -8$

$y^2 + 20y + 91 = 0$

$y^2 + 13y + 7y + 91 = 0$

$y(y + 13) + 7(y + 13) = 0$

$y = -13, -7$

Relationship between x and y cannot be determined.

75. Answer: A

$3x^2 – 36x = 0$

$3x(x – 12) = 0$

$x = 12, 0$

$y^2 + 14y + 33 = 0$

$y^2 + 11y + 3y + 33 = 0$

$y(y + 11) + 3(y + 11) = 0$

$y = -11, -3$

$x > y$

76. Answer: D

$x + 3y = 15$ ------(1)

$2x + y = 10$ ------(2)

From (1) and (2)

$5y = 20$

$y = 4$

$x = 15 – 12 = 3$

$x < y$

77. Answer: B

$x^2 – 29x + 168 = 0$

$x^2 – 8x – 21x + 168 = 0$

$x(x – 8) – 21(x – 8) = 0$

$x = 8, 21$

$y^2 + 10y - 144 = 0$

$y^2 + 18y – 8y – 144 = 0$

$y(y + 18) – 8(y + 18) = 0$

$y = 8, -18$

$x \geq y$

78. Answer: C

$x^2 – 38x + 352 = 0$

$x^2 – 22x – 16x + 352 = 0$

$x(x – 22) – 16(x – 22) = 0$

$x = 16, 22$

$y^2 – 41y + 418 = 0$

$y^2 – 22y – 19y + 418 = 0$

$y(y – 22) – 19(y – 22) = 0$

$y = 19, 22$

Relationship between x and y cannot be established.

79. Answer: B

$x^2 – 28x + 192 = 0$

$x^2 – 16x – 12x + 192 = 0$

$x(x – 16) – 12(x – 16) = 0$

$x = 16, 12$

$y^2 – 20y + 96 = 0$

$y^2 – 12y – 8y + 96 = 0$

$y(y – 12) – 8(y – 12) = 0$

$y = 12, 8$

$x \geq y$

80. Answer: E

$x^2 + 9x – 52 = 0$

$x^2 + 13x – 4x – 52 = 0$

$x(x + 13) – 4(x + 13) = 0$

$x = -13, 4$

$y^2 – 14y + 40 = 0$

$y^2 – 10y – 4y + 40 = 0$

$y(y – 10) – 4(y – 10) = 0$

$y = 10, 4$

$x \leq y$

81. Answer: E

$x^2 – 5x – 300 = 0$

$x^2 – 20x + 15x – 300 = 0$

$x(x –20) + 15(x – 20) = 0$

$x = + 20, - 15$

$y^2 + 27y + 180 = 0$

$y^2 + 15y + 12y + 180 = 0$

$y(y + 15) + 12(y + 15) = 0$

$y = - 15, - 12$

The relationship can't be determined

82. Answer: A

$x^2 + 13x + 42 = 0$

$x^2 + 7x + 6x + 42 = 0$

$x(x + 7) + 6(x + 7) = 0$

$x = - 7, - 6$

$y^2 + 18y + 80 = 0$

$y^2 + 10y + 8y + 80 = 0$

$y(y + 10) + 8(y + 10) = 0$

$y = - 10, - 8$

Hence, $x > y$

83. Answer: D

$x^2 + 4x – 45 = 0$

$x^2 + 9x – 5x – 45 = 0$

$x(x + 9) – 5(x + 9) = 0$

$x = - 9, + 5$

$y^2 – 17y + 60 = 0$

$y^2 – 12y – 5y + 60 = 0$

$y(y – 12) – 5(y – 12) = 0$

$y = + 12, + 5$

Hence, $x \leq y$

84. Answer: C

$x^2 – 12x + 32 = 0$

$x^2 – 8x – 4x + 32 = 0$

$x(x – 8) – 4(x – 8) = 0$

$x = 4, 8$

$y^2 – 13y + 36 = 0$

$y^2 – 9y – 4y + 36 = 0$

$y(y – 9) – 4(y – 9) = 0$

$y = 9, 4$

Relationship between x and y can't be determined

85. Answer: A

$4x^2 – 16x + 15 = 0$

$4x^2 – 10x – 6x + 15 = 0$

$4x(x – 10/4) – 6(x – 10/4) = 0$

$x = 10/4, 6/4 = 2.5, 1.5$

$y^2 + y – 2 = 0$

$y^2 + 2y – y – 2 = 0$

$y(y + 2) – 1(y + 2) = 0$

$y = 1, -2$

$x > y$

86. Answer: B

$x^2 – 14x + 45 = 0$

$x^2 – 9x – 5x + 45 = 0$

$x(x – 9) – 5(x – 9) = 0$

$x = 9, 5$

$y^2 + 3y – 40 = 0$

$y^2 + 8y – 5y – 40 = 0$

$y(y + 8) – 5(y + 8) = 0$

$y = 5, -8$

$x \geq y$

87. Answer: E

$x^2 – 19x + 88 = 0$

$x^2 – 11x – 8x + 88 = 0$

$x(x – 11) – 8(x – 11) = 0$

$x = 11, 8$

$y^2 – 23y + 132 = 0$

$y^2 – 12y – 11y + 132 = 0$

$y(y – 12) – 11(y – 12) = 0$

$y = 12, 11$

$x \leq y$

88. Answer: A

$x^2 + 10x + 9 = 0$

$x^2 + x + 9x + 9 = 0$

$x(x + 1) + 9(x + 1) = 0$

$x = -1, -9$

$y^2 + 24y + 140 = 0$

$y^2 + 14y + 10y + 140 = 0$

$y(y + 14) + 10(y + 14) = 0$

$y = -14, -10$

$x > y$

89. Answer: C

$x^2 – 7x – 368 = 0$

$x^2 – 23x + 16x – 368 = 0$

$x(x – 23) + 16(x – 23) = 0$

$x = 23, -16$

$y^2 + 2y – 575 = 0$

$y^2 + 25y – 23y – 575 = 0$

$y(y + 25) – 23(y + 25) = 0$

$y = 23, -25$

Relationship between x and y cannot be established.

90. Answer: E

$x^2 + 26x – 120 = 0$

$x^2 + 30x – 4x – 120 = 0$

$x(x + 30) – 4(x + 30) = 0$

$x = 4, -30$

$y^2 – 26y + 88 = 0$

$y^2 – 22y – 4y + 88 = 0$

$y(y – 22) – 4(y – 22) = 0$

$y = 22, 4$

$x \leq y$

91. Answer: C

$x^2 + 35x + 306 = 0$

$x^2 + 17x + 18x + 306 = 0$

$x(x + 17) + 18(x + 17) = 0$

$x = -17, -18$

$y^2 + 40y + 391 = 0$

$y^2 + 23y + 17y + 391 = 0$

$y(y + 23) + 17(y + 23) = 0$

$y = -23, -17$

Relationship between x and y cannot be determined.

92. Answer: B

$x^2 – 32x + 252 = 0$

$x^2 – 14x – 18x + 252 = 0$

$x(x – 14) – 18(x – 14) = 0$

$x = 14, 18$

$y^2 – 20y + 84 = 0$

$y^2 – 14y – 6y + 84 = 0$

$y(y – 14) – 6(y – 14) = 0$

$y = 14, 6$

$x \geq y$

93. Answer: D

2x + 3y = 73 --------(1)

x + 3y = 59 -----(2)

x = 14

y = 73 – 28/3 = 15

x < y

94. Answer: E

I). $x^2 = 196$

=> x = +14 , - 14

II). $y^2 + 2y – 48 = 0$

=> $y^2 + 8y - 6y – 48 = 0$

=> y (y + 8) - 6(y + 8) = 0

=> (y – 6)(y + 8) = 0

=> y = 6, -8

Hence, relationship between x and y cannot be determined

95. Answer: B

I). $x^3 = 6859$ => x = 19

II). $y^3 = 3375$ => y = 15

Hence, x > y

96. Answer: E

I). $2x^2 + 19x + 42 = 0$

=> 2x + 12x + 7x + 42 = 0

=> 2x (x + 6) + 7 (x + 6) = 0

= > (2x + 7) (x + 6) = 0

=> x = -7/2 , -6

II). $4y^2 + 43y + 30 = 0$

=> $4y^2 + 40y + 3y +30 = 0$

=> 4y(y + 10) + 3(y + 10) = 0

=> (4y + 3)(y + 10) = 0

=> y = -3/4, -10

Hence, relationship between x and y cannot be determined

97. Answer: D

I). $72 – 30x = -2x^2$

=> $2x^2 - 30x + 72 = 0$

=> $x^2 - 15x + 36= 0$

= > x = 3, 12

II). $y^2 – 40/6 = 7/3$

=> $y^2 - 20/3 = 7/3$

=> $y^2 = 27/3$

=> y = 3, -3

Hence, x ≥ y

98. Answer: C

I). $2x^2 - x – 1 = 0$

=> $2x^2 - 2x + x - 1 = 0$

=> 2x (x – 1) + 1 (x – 1) = 0

= > (2x + 1) (x – 1)= 0

=> x = -1/2, 1

II). $2y^2 – 4y + 2 = 0$

=> $2y^2 - 2y – 2y + 2 = 0$

=> 2y (y - 1) - 2 (y - 1) = 0

=> (2y – 2) (y – 1) = 0

=> y = 1, 1

Hence, x ≤ y

99. Answer: E

$x^2 + 5x – 126 = 0$

$x^2 + 14x – 9x – 126 = 0$

x(x + 14) – 9(x + 14) = 0

x = -14, +9

$y^2 – 22y + 117 = 0$

$y^2 – 13y – 9y + 117 = 0$

$y(y – 13) -9(y – 13) = 0$

$y = +13, +9$

Hence, $x \leq y$

100. Answer: D

$3x^2 –5x – 12 = 0$

$3x^2 – 9x + 4x – 12 = 0$

$3x(x – 3) + 4(x – 3) = 0$

$x = +3, -4/3$

$x = +3, -1.33$

$2y^2 - 21y +54 = 0$

$2y^2 - 12y - 9y + 54 = 0$

$2y(y – 6) – 9(y – 6) = 0$

$y = +6, +9/2$

$y = +6, +4.5$

Hence, $x < y$

101. Answer: C

$x^2 - 22x + 105 = 0$

$x^2 - 15x - 7x + 105 = 0$

$x(x-15) - 7(x-15) = 0$

$x = 15,7$

$y^2 - 24y + 128 = 0$

$y^2 - 16y - 8y + 128 = 0$

$y(y-16) - 8(y - 16) = 0$

$y = 8,16$

Relationship between x and y can’t be determined

102. Answer: D

$2x^2 – 28x + 96 = 0$

$\div 2,$

$x^2 – 14x + 48 = 0$

$x^2 – 8x – 6x + 48 = 0$

$x(x-8) – 6(x -8) = 0$

$x = 6,8$

$y^2 – 22y + 120 = 0$

$y^2 – 10y – 12y + 120 = 0$

$y(y-10) – 12(y – 10) = 0$

$y = 10,12$

$x < y$

103. Answer: C

$x^2 - x - 20 = 0$

$x^2 - 5x + 4x - 20 = 0$

$x(x - 5) + 4(x - 5) = 0$

$(x + 4)(x - 5) = 0$

$x = -4, 5$

$y^2 - 9y - 22 = 0$

$y^2 - 11y + 2y - 22 = 0$

$y(y - 11) + 2(y - 11) = 0$

$(y + 2)(y - 11) = 0$

$y = -2, 11$

Relationship between x and y cannot be established.

104. Answer: B

$2x^2 – 9x + 10 = 0$

$2x^2 – 4x – 5x + 10 = 0$

$2x(x – 2) – 5(x – 2) = 0$

$x = +2, +5/2$

$x = +2, +2.5$

$3y^2 + 4y – 20 = 0$

$3y^2 – 6y + 10y – 20 = 0$

$3y(y – 2) + 10(y – 2) = 0$

$y = +2, -10/3$

y = +2, -3.3

Hence, x ≥ y

105. Answer: D

$x^2 + 13x + 40 = 0$

$x^2 + 8x + 5x + 40 = 0$

$x(x + 8) + 5(x + 8) = 0$

x = -8, -5

$y^2 – 21y + 108 = 0$

$y^2 – 12y – 9y + 108 = 0$

$y(y – 12) – 9(y – 12) = 0$

y = +12, +9

Hence, x < y

106. Answer: C

$x^2 – 2x – 63 = 0$

$x^2 – 9x + 7x – 63 = 0$

$x(x – 9) + 7(x – 9) = 0$

x = +9, -7

$y^2 + y – 132 = 0$

$y^2 – 11y + 12y – 132 = 0$

$y(y – 11) + 12(y – 11) = 0$

y = +11, -12

The relationship between x and y can't be determined

107. Answer: A

3x + y = 53 –(1)

2x – 3y = 6 –(2)

From (1) and (2),

9x + 3y = 159

2x – 3y = 6

11x = 165

x = 15

3 * 15 + y = 53

y = 53 – 45

y = 8

Hence, x > y

108. Answer: E

$4x^2 – x – 14 = 0$

$4x^2 – 8x + 7x – 14 = 0$

$4x(x – 2) + 7(x – 2) = 0$

x = +2, -7/4

x = +2, -1.75

$5y^2 – 21 + 22 = 0$

$5y^2 – 10y – 11y + 22 = 0$

$5y(y – 2) – 11(y – 2) = 0$

y = +2, +11/5

y = +2, +2.2

Hence, x ≤ y

109. Answer: B

$2x^2 – 13x + 20 = 0$

$2x^2 – 8x – 5x + 20 = 0$

$2x(x – 4) – 5(x – 4) = 0$

x = 4, 5/2

$4y^2 – 18y + 20 = 0$

$4y^2 – 10y – 8y + 20 = 0$

$4y(y – 10/4) – 8(y – 10/4) = 0$

y = 2, 10/4

x ≥ y

110. Answer: C

$x^2 – 4x – 117 = 0$

$x^2 – 13x + 9x – 117 = 0$

$x(x - 13) + 9(x - 13) = 0$

$x = 13, -9$

$y^2 + y - 72 = 0$

$y^2 + 9y - 8y - 72 = 0$

$y(y + 9) - 8(y + 9) = 0$

$y = 8, -9$

Relationship can't be determined

111. Answer: E

$5x^2 - 18x + 16 = 0$

$5x^2 - 10x - 8x + 16 = 0$

$5x(x - 2) - 8(x - 2) = 0$

$x = 8/5, 2$

$y^2 - 5y + 6 = 0$

$y^2 - 3y - 2y + 6 = 0$

$y(y - 3) - 2(y - 3) = 0$

$y = 2, 3$

$x \leq y$

112. Answer: D

$2x + 3y = 36$ ---- (1) * 2

$4x + 6y = 72$ ---- (2)

$5x - 2y = 14$ ---- (3) * 3

$15x - 6y = 42$ ---- (4)

From (2) and (4),

$19x = 114$

$x = 6$

$2 * 6 + 3y = 36$

$3y = 24$

$y = 8$

$x < y$

113. Answer: C

$x^2 - 24x + 128 = 0$

$x^2 - 16x - 8x + 128 = 0$

$x(x - 16) - 8(x - 16) = 0$

$x = 8, 16$

$y^2 - 15y + 54 = 0$

$y^2 - 9y - 6y + 54 = 0$

$y(y - 9) - 6(y - 9) = 0$

$y = 9, 6$

Relationship can't be determined

114. Answer: A

$x^2 - 14x + 48 = 0$

$x^2 - 8x - 6x + 48 = 0$

$x(x - 8) - 6(x - 8) = 0$

$x = 6, 8$

$y^2 - 7y + 12 = 0$

$y^2 - 4y - 3y + 12 = 0$

$y(y - 4) - 3(y - 4) = 0$

$y = 3, 4$

$x > y$

115. Answer: E

From I,

$x^2 - 23x + 90 = 0$

$x^2 - 18x - 5x + 90 = 0$

$x(x - 18) - 5(x - 18) = 0$

$(x - 18)(x - 5) = 0$

$x = +18, +5$

From II,

$y^2 + 2y - 24 = 0$

$y^2 + 6y - 4y - 24 = 0$

$y(y + 6) - 4(y + 6) = 0$

$(y + 6)(y - 4) = 0$

$y = -6, +4$

x	relation	y
+18	>	-6
+18	>	+4
+5	>	-6
+5	>	+4

So, x > y

Hence, option E

116. Answer: A

From I,

$11x^2 + 20x + 9 = 0$

$11x^2 + 11x + 9x + 9 = 0$

$11x (x + 1) + 9 (x + 1) = 0$

$(x + 1) (11x + 9) = 0$

$x = -1, -9/11$

From II,

$y^2 + 7y + 12 = 0$

$y^2 + 4y + 3y + 12 = 0$

$y (y + 4) + 3 (y + 4) = 0$

$(y + 4) (y + 3) = 0$

$y = -4, -3$

x	relation	Y
-1	>	-4
-1	>	-3
-9/11	>	-4
-9/11	>	-3

So, x > y

Hence, option A

117. Answer: C

From I,

$x^2 + 3x – 40 = 0$

$x^2 + 8x - 5x – 40 = 0$

$x (x + 8) – 5 (x + 8) = 0$

$(x + 8) (x – 5) = 0$

$x = -8, +5$

From II,

$y^2 - 17y + 60 = 0$

$y^2 - 12y - 5y + 60 = 0$

$y (y – 12) – 5 (y – 12) = 0$

$(y – 12) (y – 5) = 0$

$y = +12, +5$

x	relation	Y
-8	<	+12
-8	<	+5
+5	<	+12
+5	=	+5

So, x ≤ y

Hence, option C

118. Answer: D

From I,

$x^2 + 21x + 104 = 0$

$x^2 + 13x + 8x + 104 = 0$

$x (x + 13) + 8 (x + 13) = 0$

$(x + 13) (x + 8) = 0$

$x = -13, -8$

From II,

$y^2 + 17y + 66 = 0$

$y^2 + 11y + 6y + 66 = 0$

y (y + 11) +6 (y + 11) = 0

(y + 11) (y + 6) = 0

y = -11, -6

x	relation	y
-13	<	-11
-13	<	-6
-8	>	-11
-8	<	-6

So, x = y or the relation cannot be established.

Hence, option D

119. Answer: B

From I,

x^2 - 20x + 96 = 0

x^2 - 12x - 8x + 96 = 0

x (x – 12) – 8 (x – 12) = 0

(x – 12) (x – 8) = 0

x = +12, +8

From II,

y^2 - 14y + 48 = 0

y^2 - 8y - 6y + 48 = 0

y (y – 8) – 6 (y – 8) = 0

(y – 8) (y – 6) = 0

y = +8, +6

X	relation	Y
+12	>	+8
+12	>	+6
+8	=	+8
+8	>	+6

So, x ≥ y

Hence, option B

120. Answer: E

x^2 + 28x + 192 = 0

x^2 + 16x + 12x + 192 = 0

x(x + 16) + 12(x + 16) = 0

x = - 16, - 12

y^2 + 19y + 84 = 0

y^2 + 12y + 7y + 84 = 0

y(y + 12) + 7(y + 12) = 0

y = - 12, - 7

Hence, x ≤ y

121. Answer: C

x^2 – x – 110 = 0

x^2 – 11x + 10x – 110 = 0

x(x – 11) + 10(x – 11) = 0

x = + 11, - 10

y^2 + 14y + 45 = 0

y^2 + 9y + 5y + 45 = 0

y(y + 9) + 5(y + 9) = 0

y = - 9, - 5

The relationship between x and y can't be determined

122. Answer: D

x^2 + 15x + 56 = 0

x^2 + 8x + 7x + 56 = 0

x(x + 8) + 7(x + 8) = 0

x = - 8, - 7

y^2 – 20y + 91 = 0

y^2 – 13y – 7y + 91 = 0

y(y – 13) – 7(y – 13) = 0

y = + 13, + 7

Hence, x < y

123. Answer: B

$x^2 – 20x + 99 = 0$

$x^2 – 11x – 9x + 99 = 0$

$x(x – 11) – 9(x – 11) = 0$

$x = + 11, + 9$

$y^2 = 81$

$y = \sqrt{81}$

$y = \pm 9$

Hence, x ≥ y

124. Answer: A

$x^2 – 25x + 156 = 0$

$x^2 – 12x – 13x + 156 = 0$

$x(x – 12) – 13(x – 12) = 0$

$x = + 12, + 13$

$5y^2 + 4y – 12 = 0$

$5y^2 + 10y – 6y – 12 = 0$

$5y(y + 2) – 6(y + 2) = 0$

$y = - 2, + 6/5$

$y = - 2, + 1.2$

Hence, x > y

125. Answer: D

From I $=> 5x^2 – 26x + 33 = 0$

$5x^2 – 11x -15x + 33 = 0$

$x(5x-11)-3(5x-11) = 0$

$=> (5x – 11) (x – 3) = 0$

$=> x = 2.2, 3$

From II $=> 2y^2 – 15y + 27 = 0$

$2y^2 – 9y - 6y +27 = 0$

$y(2y-9)-3(2y-9) = 0$

$=> (y – 3) (2y – 9) = 0$

$=> y = 3, 4.5$

Hence, x ≤ y

126. Answer: A

From I $=> 3x^2 - 8x + 4 = 0$

$3x^2 - 6x – 2x + 4 = 0$

$3x(x-2) -2(x-2) = 0$

$=> (x – 2) (3x – 2) = 0$

$=> x = 2, 2/3$

From II $=> 5y^2 - 18y + 16 = 0$

$5y^2 - 10y -8y + 16 = 0$

$5y(y-2)-8(y-2) =0$

$=> (5y – 8) (y – 2) = 0$

$=> y = 2, 8/5$

Hence, relationship between x and y cannot be determined

127. Answer: B

From I $=> x^2 – 13x + 42 = 0$

$x^2 – 7x -6x + 42 = 0$

$x(x-7)-6(x-7) = 0$

$=> (x – 7) (x – 6) = 0$

$=> x = 6, 7$

From II $=> y^2 - 9y + 20 = 0$

$y^2 - 5y -4y + 20 = 0$

$y(y-5)-4(y-5) = 0$

$=> (y – 5) (y – 4) = 0$

$=> y = 4, 5$

Hence, x > y

128. Answer: C

From I $=> 3x^2 – 23x + 40 = 0$

$3x^2 – 15x -8x + 40 = 0$

$3x(x-5)-8(x-5) = 0$

$\Rightarrow (3x – 8) (x – 5) = 0$

$\Rightarrow x = 8/3, 5$

From II $\Rightarrow 6y^2 + y - 2 = 0$

$6y^2 + 4y -3y - 2 = 0$

$2y(3y+2)-1(3y+2) = 0$

$\Rightarrow (2y – 1) (3y + 2) = 0$

$\Rightarrow y = 1/2, -2/3$

Hence, x > y

129. Answer: E

From I $\Rightarrow 3x^2 + 14x + 8 = 0$

$3x^2 + 12x +2x + 8 = 0$

$3x(x+4)+2(x+4) = 0$

$\Rightarrow (3x + 2) (x + 4) = 0$

$\Rightarrow x = -2/3, -4$

From II $\Rightarrow 2y^2 – 17y + 36 = 0$

$2y^2 – 9y -8y + 36 = 0$

$y(2y-9)-4(2y-9) = 0$

$\Rightarrow (2y – 9) (y – 4) = 0$

$\Rightarrow y = 9/2, 4$

Hence, x < y

130. Answer: D

From I,

$x^2 - 24x + 140 = 0$

$x^2 - 14x - 10x + 140 = 0$

$x(x - 14) - 10(x - 14) = 0$

$(x - 10)(x - 14) = 0$

$x = 10, 14$

From II,

$y^2 – 44y + 420 = 0$

$y^2 – 14y – 30y + 420 = 0$

$y(y - 14) - 30(y – 14) = 0$

$(y - 14) (y – 30) = 0$

$y= 14, 30$

Hence, x ≤ y

131. Answer: D

From I,

$x^2 - 81 = 0$

$x^2 = 81$

$x = + 9, - 9$

From II,

$y^3 = 64$

$y = \sqrt[3]{64}$

$y = 4$

Hence, x = y or relationship can't be determined.

132. Answer: B

From I,

$3x^2 - 40x + 112 = 0$

$3x^2 - 12x - 28x + 112 = 0$

$3x(x - 4) - 28(x - 4) = 0$

$(3x - 28) (x - 4) = 0$

$x = 28/3, 4$

From II,

$3y^2 + 58y + 280 = 0$

$3y^2 + 30y + 28y + 280 = 0$

$3y(y + 10) + 28(y + 10) = 0$

$(3y + 28) (y + 10) = 0$

$y = - 28/3, -10$

Hence, x > y

133. Answer: D

$8x + 11y = 14$ .....(1)

4x + 5y = 6 .....(2)

(2) * 2 => 8x + 10y = 12 .....(3)

From (1) & (3)

y = 2

y = 2

sub in (2)

4x + 5 * 2 = 6

4x + 10 = 6

4x = 6 - 10

4x = - 4

x = - 1

Hence, x < y

134. Answer: B

From I,

x^2 + 12x - 160 = 0

x^2 - 8x + 20x - 160 = 0

x(x - 8) + 20(x - 8) = 0

(x + 20) (x - 8) = 0

x = - 20, 8

From II,

y^2 - 21y + 110 = 0

y^2 - 10y - 11y + 110 = 0

y(y - 10) - 11(y - 10) = 0

(y - 11) (y - 10) = 0

y = 11, 10

Hence , x < y

135. Answer: D

From I,

x^2 – 30x + 224 = 0

x^2 - 14x - 16x + 224 = 0

x(x - 14) - 16(x - 14) = 0

(x - 14) (x - 16) = 0

x = 14, 16

From II,

y^2 - 20y + 84 = 0

y^2 - 6y - 14y + 84 = 0

y(y - 6) – 14(y - 6)= 0

(y - 14) (y - 6) = 0

y = 14, 6

Hence, x ≥ y

136. Answer: A

From I,

$2x^2$ + 9x - 243 = 0

$2x^2$ - 18x + 27x - 243 = 0

2x(x - 9) + 27(x - 9) = 0

(2x + 27)(x - 9) = 0

x = - 27/2, 9

From II,

$2y^2$ - 57y + 405 = 0

$2y^2$ - 30y - 27y + 405 = 0

2y(y - 15) - 27(y - 15) = 0

(2y - 27) (y - 15) = 0

y= + 27/2, 15

Hence, x < y

137. Answer: C

From I,

x^2 - 46x + 480 = 0

x^2 - 16x - 30x + 480 = 0

x(x - 16) - 30(x - 16) = 0

(x - 30) (x - 16) = 0

x = 30, 16

From II,

$y^2 + 12y – 64 = 0$

$y^2 + 16y – 4y – 64 = 0$

$y(y + 16) - 4(y + 16) = 0$

$(y - 4) (y + 16) = 0$

$y = +4, -16$

Hence, x > y

138. Answer: B

$x^2 = 49$

$x = 7, -7$

$(y + 7)^2 = 0$

$y^2 + 14y + 49 = 0$

$y^2 + 7y + 7y + 49 = 0$

$y(y + 7) + 7(y + 7) = 0$

$y = -7, -7$

x ≥ y

139. Answer: E

$x^2 + 5x – 84 = 0$

$x^2 + 12x – 7x – 84 = 0$

$x(x + 12) – 7(x + 12) = 0$

$x = 7, -12$

$y^2 – 15y + 56 = 0$

$y^2 – 8y – 7y + 56 = 0$

$y(y – 8) – 7(y – 8) = 0$

$y = 7, 8$

x ≤ y

140. Answer: B

$4x^2 + 5x + 1 = 0$

$4x^2 + 4x + x + 1 = 0$

$4x(x + 1) + 1(x + 1) = 0$

$x = -1, -1/4$

$2y^2 + 5y + 3 = 0$

$2y^2 + 3y + 2y + 3 = 0$

$(y + 1) (2y + 3) = 0$

$y = -1, -3/2$

x ≥ y

141. Answer: A

$x^2 – 10x + 24 = 0$

$x^2 – 6x – 4x + 24 = 0$

$x(x – 6) – 4(x – 6) = 0$

$x = 6, 4$

$3y^2 – 14y + 16 = 0$

$3y^2 – 8y – 6y + 16 = 0$

$3y(y – 8/3) – 6(y – 8/3) = 0$

$y = 2, 8/3$

x > y

142. Answer: C

$x^2 + 11x – 126 = 0$

$x^2 + 18x – 7x – 126 = 0$

$x(x + 18) – 7(x + 18) = 0$

$x = 7, -18$

$3y^2 – 22y + 35 = 0$

$3y^2 – 15y – 7y + 35 = 0$

$3y(y – 5) – 7(y – 5) = 0$

$Y = 5, 7/3$

Relationship can't be determined

143. Answer: D

$x^2 – 16x + 60 = 0$

$x^2 – 10x – 6x + 60 = 0$

$x(x – 10) – 6(x – 10) = 0$

$x = 10, 6$

$y^2 – 22y + 121 = 0$

$y^2 – 11y – 11y + 121 = 0$

$y(y – 11) – 11(y – 11) = 0$

$y = 11, 11$

x < y

144. Answer: A

$x^2 – 3x + 2 = 0$

$x^2 – x – 2x + 2 = 0$

$x(x – 1) – 2(x – 1) = 0$

$x = 1, 2$

$10y^2 – 13y + 4 = 0$

$10y^2 – 8y – 5y + 4 = 0$

$10y(y – 8/10) – 5(y – 8/10) = 0$

$y = 5/10, 8/10$

x > y

145. Answer: B

$x^2 – 45x + 500 = 0$

$x^2 – 20x – 25x + 500 = 0$

$x(x – 20) – 25(x – 20) = 0$

$x = 20, 25$

$y^2 – 38y + 360 = 0$

$y^2 – 20y – 18y + 360 = 0$

$y(y – 20) – 18(y – 20) = 0$

$y = 18, 20$

x ≥ y

146. Answer: C

$x^2 – 20x + 100 = 0$

$x^2 – 10x – 10x + 100 = 0$

$x(x – 10) – 10(x – 10) = 0$

$x = 10, 10$

$y^2 = 121$

$y = 11, -11$

Relationship can't be determined

147. Answer: A

$x^2 – 11x + 30 = 0$

$x^2 – 6x – 5x + 30 = 0$

$x(x – 6) – 5(x – 6) = 0$

$x = + 6, + 5$

$2y^2 - 13y + 20 = 0$

$2y^2 – 8y – 5y + 20 = 0$

$2y(y – 4) – 5(y – 4) = 0$

$y = + 4, + 5/2$

$y = + 4, + 2.5$

Hence, x > y

148. Answer: D

$x^2 + 23x + 132 = 0$

$x^2 + 11x + 12x + 132 = 0$

$x(x + 11) + 12(x + 11) = 0$

$x = - 11, - 12$

$y^2 + 11y + 28 = 0$

$y^2 + 7y + 4y + 28 = 0$

$y(y + 7) + 4(y + 7) = 0$

$y = - 7, - 4$

Hence, x < y

149. Answer: D

$3x + y = 25$ –(1)

$2y + x = 25$ –(2)

From (1) and (2),

$6x + 2y = 50$

$-2y – x = - 25$

$5x = 25$

$x = 5$

$3 * 5 + y = 25$

$y = 25 – 15$

$y = 10$

Hence, $x < y$

150. Answer: B

$x^2 – 13x + 36 = 0$

$x^2 – 9x – 4x + 36 = 0$

$x(x – 9) – 4(x – 9) = 0$

$x = + 9, + 4$

$2y^2 + y – 36 = 0$

$2y^2 - 8y + 9y – 36 = 0$

$2y(y – 4) + 9(y – 4) = 0$

$y = + 4, - 9/2$

$y = + 4, - 4.5$

Hence, $x \geq y$

151. Answer: E

$x^2 + 16x + 63 = 0$

$x^2 + 9x + 7x + 63 = 0$

$x(x + 9) + 7(x + 9) = 0$

$x = - 9, - 7$

$y^2 – 5y – 84 = 0$

$y^2 – 12y + 7y – 84 = 0$

$y(y – 12) + 7(y – 12) = 0$

$y = + 12, - 7$

Hence, $x \leq y$

152. Answer: C

I). $5x^2 – 14x – 55 = 0$

$5x^2 – 25x + 11x – 55 = 0$

$5x (x – 5) + 11 (x – 5) = 0$

$(5x + 11) (x – 5) = 0$

$x = -2.2, 5$

II). $4y^2 – 2y – 56 = 0$

$4y^2 – 16y + 14y – 56 = 0$

$4y (y – 4) + 14 (y – 4) = 0$

$(4y + 14) (y – 4) = 0$

$y = -3.5, 4$

Can't be determined

153. Answer: D

$10x – 7y = -16$ --> (1)

$3x – 4y = -1$ -----> (2)

By solving the equation (1) and (2), we get,

$x = -3, y = -2$

$x < y$

154. Answer: A

I). $x^2 – 30x + 81 = 0$

$(x – 27) (x - 3) = 0$

$x = 27, 3$

II). $3y^2 – 9y + 6 = 0$

$3y^2 – 6y – 3y + 6 = 0$

$3y (y – 2) – 3 (y – 2) = 0$

$(3y – 3) (y – 2) = 0$

$y = 1, 2$

$x > y$

155. Answer: E

I). $x^4 – 1356 = 1045$

$x^4 = 2401$

$x = 7, -7$

II). $y^3 + 183 = 526$

$y^3 = 343$

$y = 7$

$x \leq y$

156. Answer: D

I). $3x^2 – 25x + 52 = 0$

$3x^2 – 12x – 13x + 52 = 0$

$3x (x – 4) – 13 (x – 4) = 0$

$(3x – 13) (x – 4) = 0$

$x = 13/3, 4 = 4.33, 4$

II). $2y^2 – 23y + 65 = 0$

$2y^2 – 10y – 13y + 65 = 0$

$2y (y – 5) – 13 (y – 5) = 0$

$(2y – 13) (y – 5) = 0$

$y = 6.5, 5$

$x < y$

157. Answer: C

$x^2 - 16x + 63 = 0$

$x^2 – 9x – 7x + 63 = 0$

$x(x – 9) – 7(x – 9) = 0$

$(x – 7)(x – 9) = 0$

$x = +7, +9$

$y^2 - 14y + 45 = 0$

$y^2 – 9y – 5y + 45 = 0$

$y(y – 9) – 5(y – 9) = 0$

$(y – 5)(y – 9) = 0$

$y = +5, +9$

The relationship between x and y cannot be established.

158. Answer: E

$x^2 + 29x + 120 = 0$

$x^2 + 5x + 24x + 120 = 0$

$x(x + 5) + 24(x + 5) = 0$

$(x + 24)(x + 5) = 0$

$x = -24, -5$

$y^2 – 13y – 90 = 0$

$y^2 – 18y + 5y – 90 = 0$

$y(y – 18) + 5(y – 18) = 0$

$(y + 5)(y – 18) = 0$

$y = -5, + 18$

Hence, $x \leq y$

159. Answer: B

$x^4 = 4096$

$x = \pm 8$

$y^2 + 17y + 72 = 0$

$y^2 + 9y + 8y + 72 = 0$

$y(y + 9) + 8(y + 9) = 0$

$(y + 8)(y + 9) = 0$

$y = -8, -9$

Hence, $y \leq x$

160. Answer: D

$5x^2 – 25x + 30 = 0$

$x^2 – 5x + 6 = 0$

$x^2 – 3x – 2x + 6 = 0$

$x(x – 3) – 2(x – 3) = 0$

$x = + 2, + 3$

$y^2 - 11y + 30 = 0$

$y^2 – 5y – 6y + 30 = 0$

$y(y – 5) – 6(y – 5) = 0$

$y = + 5, + 6$

Hence, $x < y$

161. Answer: B

$x^2 – x - 6 = 0$

$x^2 – 3x + 2x – 6 = 0$

$x(x – 3) + 2(x – 3) = 0$

$(x + 2)(x – 3) = 0$

$x = - 2, + 3$

$y^2 + 5y + 6 = 0$

$y^2 + 3y + 2y + 6 = 0$

$y(y + 3) + 2(y + 3) = 0$

$(y + 2)(y + 3) = 0$

$y = - 2, -3$

Hence, $x \geq y$

162. Answer: C

$x^2 - 23x + 126 = 0$

$x^2 – 14x – 9x + 126 = 0$

$x(x – 14) - 9(x – 14) = 0$

$(x – 9)(x – 14) = 0$

$x = +9, +14$

$y^2 + y - 156 = 0$

$y^2 + 13y – 12y – 156 = 0$

$y(y + 13) – 12(y + 13) = 0$

$(y – 12)(y + 13) = 0$

$y = +12, -13$

Relationship between x and y cannot be established.

163. Answer: E

$x^2 – 32x + 252 = 0$

$x^2 – 18x – 14x + 252 = 0$

$x(x – 18) – 14(x – 18) = 0$

$(x – 14)(x – 18) = 0$

$x = +14, +18$

$y^2 – 37y + 342 = 0$

$y^2 – 18y – 19y + 342 = 0$

$y(y – 18) – 19(y – 18) = 0$

$(y – 19)(y – 18) = 0$

$y = +19, +18$

$x \leq y$

164. Answer: A

$x^2 - 14x + 48 = 0$

$x^2 – 6x – 8x + 48 = 0$

$x(x – 6) – 8(x – 6) = 0$

$(x – 8)(x – 6) = 0$

$x = +8, +6$

$y^2 – 9y + 20 = 0$

$y^2 – 4y – 5y + 20 = 0$

$y(y – 4) – 5(y – 4) = 0$

$(y – 5)(y – 4) = 0$

$y = +5, +4$

$x > y$

165. Answer: C

$x^2 – 5x - 24 = 0$

$x^2 – 8x + 3x – 24 = 0$

$x(x – 8) + 3(x – 8) = 0$

$(x + 3)(x – 8) = 0$

$x = -3, +8$

$y^2 – 6y – 27 = 0$

$y^2 – 9y + 3y – 27 = 0$

$y(y – 9) + 3(y – 9) = 0$

$(y + 3)(y – 9) = 0$

$y = -3, +9$

Relationship between x and y cannot be established.

166. Answer: C

$x^2 + 18x + 80 = 0$

$x^2 + 8x + 10x + 80 = 0$

$x(x + 8) + 10(x + 8) = 0$

$(x + 8)(x + 10) = 0$

$x = -8, -10$

$y^2 + 19y + 90 = 0$

$y^2 + 9y + 10y + 90 = 0$

$y(y + 9) + 10(y + 9) = 0$

$(y + 9)(y + 10) = 0$

$y = -9, -10$

Relationship between x and y cannot be established.

167. Answer: A

$x^2 – 26x + 88 = 0$

$x^2 – 22x – 4x + 88 = 0$

$x(x – 22) – 4(x – 22) = 0$

$(x – 4)(x – 22) = 0$

$x = 4, 22$

$y^2 + 28y + 96 = 0$

$y^2 + 24y + 4y + 96 = 0$

$y(y + 24) + 4(y + 24) = 0$

$(y + 4)(y + 24) = 0$

$y = -4, -24$

$x > y$

168. Answer: B

$x^2 – 37x – 78 = 0$

$x^2 – 39x + 2x – 78 = 0$

$x(x – 39) + 2(x – 39) = 0$

$x = 39, -2$

$y^2 + 43y + 82 = 0$

$y^2 + 41y + 2y + 82 = 0$

$y(y + 41) + 2(y + 41) = 0$

$y = -41, -2$

$x \geq y$

169. Answer: C

$x^2 + 2x – 120 = 0$

$x^2 + 12x – 10x – 120 = 0$

$x(x + 12) – 10(x + 12) = 0$

$(x – 10)(x + 12) = 0$

$x = 10, -12$

$y^2 – 12y + 20 = 0$

$y^2 – 10y – 2y + 20 = 0$

$y(y – 10) – 2(y – 10) = 0$

$(y – 2)(y – 10) = 0$

$y = 2, 10$

Relationship between x and y cannot be established.

170. Answer: C

$x^2 + 27x + 182 = 0$

$x^2 + 13x + 14x + 182 = 0$

$x(x + 13) + 14(x + 13) = 0$

$x = -13, -14$

$y^2 - 4y - 252 = 0$

$y^2 – 18y + 14y – 252 = 0$

$y(y – 18) + 14(y – 18) = 0$

$y = 18, -14$

Relationship between x and y cannot be established.

171. Answer: A

x + y = 11 -----(1)

4x + 3y = 39 -----(2)

From (1) and (2)

x = 39 – 33 = 6

y = 11 – 6 = 5

x > y

172. Answer: C

$x^2 – 17x + 70 = 0$

$x^2 – 10x – 7x + 70 = 0$

x(x – 10) – 7(x – 10) = 0

x = 10, 7

$y^2 – 20y + 91 = 0$

$y^2 – 13y – 7y + 91 = 0$

y(y – 13) – 7(y – 13) = 0

y = 13, 7

Relationship can 't be determined

173. Answer: A

$x^2 – 18x + 81 = 0$

$x^2 – 9x – 9x + 81 = 0$

x(x – 9) – 9(x – 9) = 0

x = 9, 9

$y^2 – 12x + 32 = 0$

$y^2 – 8y – 4y + 32 = 0$

y(y – 8) – 4(y – 8) = 0

y = 4, 8

x > y

174. Answer: C

$x^2 = 196$

x = 14, -14

$y = \sqrt{196} – 4 = 10$

Relationship can't be determined

175. Answer: B

$4x^2 – 17x + 18 = 0$

$4x^2 – 9x – 8x + 18 = 0$

4x(x – 9/4) – 8(x – 9/4) = 0

x = 2, 9/4

$5y^2 – 19y + 18 = 0$

$5y^2 – 10y – 9y + 18 = 0$

5y(y – 2) – 9(y – 2) = 0

y = 2, 9/5

x ≥ y

176. Answer: E

$x^2 + 4x – 5 = 0$

$x^2 + 5x –1x – 5 = 0$

x(x + 5) – 1(x + 5) = 0

(x – 1)(x + 5) = 0

x = +1, -5

$3y^2 – 8y + 5 = 0$

$3y^2 – 3y – 5y + 5 = 0$

3y(y – 1) – 5(y – 1) = 0

(3y – 5)(y – 1) = 0

y = +1, +5/3

Hence, x ≤ y

177. Answer: A

$x^2– 12x + 35 = 0$

$x^2 – 7x - 5x + 35 = 0$

x(x – 7) – 5(x – 7) = 0

(x – 7)(x – 5) = 0

x = +7, +5

$y^2 – 6y + 8 = 0$

$y^2 – 4y – 2y + 8 = 0$

$y(y – 4) – 2(y – 4) = 0$

$(y – 4)(y – 2) = 0$

$y = +4, +2$

Hence, $x > y$

178. Answer: B

$3x^2 + 10x + 8 = 0$

$3x^2 + 6x + 4x + 8 = 0$

$3x(x + 2) + 4(x + 2) = 0$

$(3x + 4)(x + 2) = 0$

$x = -4/3, -2$

$y^2 + 19y + 34 = 0$

$y^2 + 17y + 2y + 34 = 0$

$y(y + 17) + 2(y + 17) = 0$

$(y + 17)(y + 2) = 0$

$y = -17, -2$

Hence, $x \geq y$

179. Answer: C

$x^2 - 34x + 288 = 0$

$x^2 - 16x – 18x + 288 = 0$

$x(x - 16) – 18(x – 16) = 0$

$(x - 18)(x - 16) = 0$

$x = + 18, + 16$

$2y^2 – 51y + 280 = 0$

$2y^2 – 16y - 35y + 280 = 0$

$2y(y - 8) – 35(y - 8) = 0$

$(2y - 35) (y – 8) = 0$

$y= + 35/2, + 8$

Hence, the relationship between x and y cannot be determined.

180. Answer: A

$3x^2 - 41x + 136 = 0$

$3x^2 - 24x - 17x + 136 = 0$

$3x(x - 8) - 17(x - 8) = 0$

$(3x - 17)(x - 8) = 0$

$x = + 17/3, + 8$

$3y^2 + 5y - 68 = 0$

$3y^2 – 12y + 17y - 68 = 0$

$3y(y - 4) + 17(y - 4) = 0$

$(3y + 17) (y – 4) = 0$

$y= - 17/3, + 4$

Hence, $x > y$

181. Answer: D

$2x^2 + 57x + 370 = 0$

$2x^2 + 20x + 37x + 370 = 0$

$2x(x + 10) + 37(x + 10) = 0$

$(2x + 37) (x + 10) = 0$

$x = - 37/2, - 10$

$2y^2 - 51y + 310 = 0$

$2y^2 - 20y - 31y + 310 = 0$

$2y(y - 10) - 31(y - 10) = 0$

$(2y - 31) (y- 10) = 0$

$y= + 31/2, + 10$

Hence, $x < y$

182. Answer: B

$x - \sqrt{256} = 0$

$x = \sqrt{256}$

$x = 16$

$y^3 - 72 = 144$

$y^3 = 144 + 72$

$y^3 = 216$

y = 6

Hence, x > y

183. Answer: E

6x + 9y = 27 .....(1)

4x + 3y = 15.....(2)

(2) * 3 => 12x + 9y = 45 .....(3)

From (1) & (3)

x = 3

x = 3 sub in (2)

4(3) + 3y = 15

12 + 3y = 15

3y = 15 – 12

3y = 3

y = 1

Hence, x > y

184. Answer: A

x^2 + 19x - 330 = 0

x^2 + 30x - 11x - 330 = 0

x(x + 30) - 11(x + 30) = 0

(x - 11) (x + 30) = 0

x = + 11, - 30

y^2 - 40y + 364 = 0

y^2 - 14y - 26y + 364 = 0

y(y - 14) - 26(y - 14) = 0

(y - 26) (y - 14) = 0

y= + 26, + 14

Hence, x < y

185. Answer: D

$5x^2+6x-27=0$

$5x^2+15x-9x-27=0$

5x(x+3)-9(x+3)=0

x=-3, +9/5

x=-3, +1.8

$y^2-19y+60=0$

$y^2-15y-4y+60=0$

y(y-15)-4(y-15)=0

y=+15, +4

Hence, x < y

186. Answer: B

$x^2-9x-136=0$

$x^2-17x+8x-136=0$

x(x-17)+8(x-17)=0

x=+17, -8

$y^2+23y+120=0$

$y^2+15y+8y+120=0$

y(y+15)+8(y+15)=0

y=-15, -8

Hence, x ≥ y

187. Answer: A

$x^2-14x+48=0$

$x^2-8x-6x+48=0$

x(x-8)-6(x-8)=0

x=+6, +8

$2y^2+3y-77=0$

$2y^2+14y-11y-77=0$

2y(y+7)-11(y+7)=0

y=-7, +11/2

y=-7, +5.5

Hence, x > y

188. Answer: C

$x^2+13x+40=0$

$x^2+8x+5x+40=0$

$x(x+8)+5(x+8)=0$

$x=-8, -5$

$y^2+17y+60=0$

$y^2+12y+5y+60=0$

$y(y+12)+5(y+12)=0$

$y=-12, -5$

Hence the relationship between x and y cannot be determined

189. Answer: D

$2x^2+13x+20=0$

$2x^2+8x+5x+20=0$

$2x(x+4)+5(x+4)=0$

$x=-4, -5/2$

$x=-4, -2.5$

$y^2-25y+84=0$

$y^2-21y-4y+84=0$

$y(y-21)-4(y-21)=0$

$y=+21, +4$

Hence, $x < y$

190. Answer: E

$x^2+21x+80=0$

$x^2+16x+5x+80=0$

$x(x+16)+5(x+16)=0$

$x=-16, -5$

$y^2-8y-65=0$

$y^2-13y+5y-65=0$

$y(y-13)+5(y-13)=0$

$y=+13, -5$

Hence $x \leq y$.