



1. Solve :  $16x^2 + 10abx + a^2b^2 = 0$

- (i)  $-\frac{2ab}{5}, -\frac{ab}{10}$  (ii)  $-\frac{ab}{4}, -\frac{ab}{8}$  (iii)  $-\frac{3ab}{4}, -\frac{3ab}{8}$  (iv)  $-\frac{ab}{2}, -\frac{ab}{8}$  (v)  $-\frac{2ab}{3}, -\frac{ab}{6}$

2. Solve :  $\frac{(x-2)}{(x+6)} + \frac{(x+4)}{(x-4)} = \frac{158}{39}$

- (i) (-10,6) (ii) (-11,5) (iii) (-6,10) (iv) (-9,7) (v) (-8,8)

3. Find the roots of the quadratic equation  $(x^2 - 15x + 54) = 0$

- (i) (12,4) (ii) (9,6) (iii) (10,6) (iv) (10,5) (v) (12,5)

4. Find the roots of the quadratic equation  $(x^2 - 4x + 3) = 0$

- (i) (6,-2) (ii) (3,1) (iii) (4,0) (iv) (4,1) (v) (6,0)

5. Find the roots of the quadratic equation  $(21x^2 - 40x + 16) = 0$

- (i)  $(2, \frac{2}{7})$  (ii)  $(\frac{6}{5}, \frac{4}{7})$  (iii)  $(\frac{4}{3}, \frac{4}{7})$  (iv)  $(\frac{6}{5}, \frac{4}{5})$  (v)  $(2, \frac{4}{5})$

6. Solve :  $-\frac{5}{(x+4)} + \frac{2}{(-x-3)} = -\frac{5}{(x-5)}$

- (i)  $(\frac{47}{4} + \frac{3}{4}\sqrt{1203}), (\frac{47}{4} - \frac{3}{4}\sqrt{1203})$  (ii)  $(\frac{47}{4}\sqrt{4} + \frac{3}{4}\sqrt{401}), (\frac{47}{4}\sqrt{4} - \frac{3}{4}\sqrt{401})$
- (iii)  $(\frac{47}{4} + \frac{3}{4}\sqrt{802}), (\frac{47}{4} - \frac{3}{4}\sqrt{802})$  (iv)  $(\frac{47}{4}\sqrt{5} + \frac{3}{4}\sqrt{401}), (\frac{47}{4}\sqrt{5} - \frac{3}{4}\sqrt{401})$
- (v)  $(\frac{47}{4} + \frac{3}{4}\sqrt{401}), (\frac{47}{4} - \frac{3}{4}\sqrt{401})$

7. Find the discriminant of the quadratic equation  $(x^2 + 5x + 6) = 0$

- (i) 3 (ii) 0 (iii) 2 (iv) -2 (v) 1

8. Solve :  $35x^2 + 48abx + 16a^2b^2 = 0$

(i)  $-\frac{4ab}{7}, -\frac{4ab}{5}$  (ii)  $-\frac{4ab}{9}, -\frac{4ab}{7}$  (iii)  $-\frac{6ab}{7}, -\frac{6ab}{5}$  (iv)  $-\frac{2ab}{7}, -\frac{2ab}{5}$  (v)  $-\frac{4ab}{5}, -\frac{4ab}{3}$

9. Solve :  $\frac{(x+8)}{(x-7)} = \frac{(5x+12)}{(x+9)}$

(i) (-4,12) (ii) (3,-13) (iii) (-5,10) (iv) (-1,16) (v) (-3,13)

10. Find the roots of the quadratic equation  $(10x^2 - 2x - 8) = 0$

(i)  $(2, (\frac{-4}{3}))$  (ii)  $(2, (\frac{-4}{5}))$  (iii)  $(1, (\frac{-4}{5}))$  (iv)  $(4, (\frac{-4}{3}))$  (v)  $(4, (\frac{-6}{5}))$

11. Solve :  $\frac{(4x+3)}{(x+9)} = \frac{(x+2)}{(x-7)}$

(i) (15,1) (ii) (12,-2) (iii) (13,-1) (iv) (-13,1) (v) (11,-3)

12. Find the roots of the quadratic equation  $(x^2 + 11x + 18) = 0$

(i) (-1,-9) (ii) (1,-10) (iii) (1,-12) (iv) (-2,-9) (v) (-1,-10)

13. Solve the quadratic equation  $x + \frac{32}{4x} = \dots$

(i) (5,-8) (ii) (5,-9) (iii) (4,-8) (iv) (6,-11) (v) (6,-9)

14. Solve the quadratic equation  $x = \frac{1}{x} - \dots$

(i) (4,-2) (ii) (2,-1) (iii) (4,-4) (iv) (1,-1) (v) (2,-2)

15. Find the roots of the quadratic equation  $(32x^2 - 56x + 20) = 0$

(i)  $(\frac{7}{4}, 1)$  (ii)  $(\frac{7}{4}, (\frac{-1}{2}))$  (iii)  $(\frac{7}{6}, \frac{1}{2})$  (iv)  $(\frac{7}{6}, 1)$  (v)  $(\frac{5}{4}, \frac{1}{2})$

16. Find the roots of the quadratic equation  $(10x^2 - x - 2) = 0$

(i)  $(\frac{3}{2}, (\frac{-4}{5}))$  (ii)  $(\frac{3}{2}, (\frac{-2}{3}))$  (iii)  $(\frac{1}{4}, (\frac{-2}{5}))$  (iv)  $(\frac{1}{4}, (\frac{-2}{3}))$  (v)  $(\frac{1}{2}, (\frac{-2}{5}))$

17. Find the discriminant of the quadratic equation  $(x^2 - 5x) = 0$

(i) 24 (ii) 26 (iii) 28 (iv) 22 (v) 25

18. Solve :  $\frac{2}{(x+1)} - \frac{3}{(x+2)} = -\frac{5}{(x-1)}$

(i)  $(-\frac{17}{8}\sqrt{4} + \frac{1}{8}\sqrt{145}), (-\frac{17}{8}\sqrt{4} - \frac{1}{8}\sqrt{145})$  (ii)  $(-\frac{17}{8}\sqrt{5} + \frac{1}{8}\sqrt{145}), (-\frac{17}{8}\sqrt{5} - \frac{1}{8}\sqrt{145})$

(iii)  $(-\frac{17}{8} + \frac{1}{8}\sqrt{435}), (-\frac{17}{8} - \frac{1}{8}\sqrt{435})$  (iv)  $(-\frac{17}{8} + \frac{1}{8}\sqrt{290}), (-\frac{17}{8} - \frac{1}{8}\sqrt{290})$

(v)  $(-\frac{17}{8} + \frac{1}{8}\sqrt{145}), (-\frac{17}{8} - \frac{1}{8}\sqrt{145})$

19. Solve :  $\frac{(x-6)}{(x-8)} + \frac{(x-4)}{(x-9)} = \frac{31}{6}$

(i)  $(\frac{158}{19}, 14)$  (ii)  $(\frac{140}{17}, 10)$  (iii)  $(\frac{154}{19}, 8)$  (iv)  $(\frac{172}{21}, 12)$  (v)  $(\frac{156}{19}, 11)$

20. Solve :  $\frac{2}{(-x-2)} - \frac{3}{(x+4)} = 3$

(i)  $(-2), (-4)$  (ii)  $(-2\sqrt{5}), (-4\sqrt{5})$  (iii)  $(-2\sqrt{3}), (-4\sqrt{3})$  (iv)  $(-2\sqrt{2}), (-4\sqrt{2})$  (v)  $(-2\sqrt{4}), (-4\sqrt{4})$

21. Solve :  $20x^2 - 23abx + 6a^2b^2 = 0$

(i)  $ab, \frac{2ab}{3}$  (ii)  $\frac{6ab}{8}, \frac{2ab}{5}$  (iii)  $\frac{3ab}{5}, \frac{2ab}{7}$  (iv)  $ab, \frac{4ab}{5}$  (v)  $\frac{ab}{2}, 0$

22. Find the roots of the quadratic equation  $(x^2 + 9x + 20) = 0$

(i)  $(-4, -5)$  (ii)  $(-2, -6)$  (iii)  $(-2, -8)$  (iv)  $(-3, -6)$  (v)  $(-3, -5)$

23. Solve the quadratic equation  $x + \frac{20}{x} - 1 = 0$

(i)  $(6, -6)$  (ii)  $(4, -5)$  (iii)  $(5, -6)$  (iv)  $(6, -7)$  (v)  $(5, -5)$

24. Find the roots of the quadratic equation  $(x^2 - 13x + 42) = 0$

(i)  $(7, 6)$  (ii)  $(9, 3)$  (iii)  $(9, 5)$  (iv)  $(8, 6)$  (v)  $(8, 5)$

25. Solve :  $\frac{1}{(-x)} - \frac{4}{(x-3)} = -2$

(i)  $0, 3$  (ii)  $1, 3\sqrt{2}$  (iii)  $(-1), 3\sqrt{3}$  (iv)  $3, 3\sqrt{4}$  (v)  $(-3), 3\sqrt{5}$

## Assignment Key

1) (iv)	2) (iv)	3) (ii)	4) (ii)	5) (iii)	6) (v)
7) (v)	8) (i)	9) (v)	10) (iii)	11) (iii)	12) (iv)
13) (iii)	14) (iv)	15) (v)	16) (v)	17) (v)	18) (v)
19) (v)	20) (i)	21) (ii)	22) (i)	23) (ii)	24) (i)
25) (i)					