EduSahara™ Assignment

Name : Quadratic Equations1

Chapter : Quadratic Equations

Grade : ICSE Grade X

1. Solve : $49x^2 - 35abx + 4a^2b^2 = 0$

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

2. Solve : $16x^2b^2 - 6axb - 7a^2 = 0$

(i) $-\frac{a}{3b}, \frac{7a}{10b}$ (ii) $-\frac{a}{b}, \frac{5a}{8b}$ (iii) $0, \frac{9a}{8b}$ (iv) $-\frac{a}{2b}, \frac{7a}{8b}$ (v) $-\frac{a}{b}, \frac{7a}{6b}$

3. Solve : $9x^2 + 3ax - 2a^2 = 0$

(i) $-\frac{a}{2}, -\frac{a}{4}$ (ii) $-a, 0$ (iii) $-\frac{a}{3}, \frac{2a}{3}$ (iv) $-a, -\frac{a}{2}$ (v) $-\frac{2a}{3}, \frac{2a}{6}$

4. Solve : $6x^2 + bx - 2b^2 = 0$

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

5. Solve : $12x^2a^2 - 5xa - 2 = 0$

(i) $-\frac{1}{6a}, \frac{2}{5a}$ (ii) $-\frac{3}{4a}, 0$ (iii) $-\frac{1}{4a}, \frac{2}{3a}$ (iv) $\frac{1}{4a}, \frac{4}{3a}$ (v) $-\frac{1}{2a}, \frac{2}{a}$

6. Solve : $16x^2b^2 + 14xb + 3 = 0$

(i) $-\frac{1}{2b}, -\frac{1}{b}$ (ii) $-\frac{3}{8b}, -\frac{1}{2b}$ (iii) $-\frac{1}{8b}, \frac{1}{2b}$ (iv) $-\frac{5}{8b}, -\frac{3}{2b}$ (v) $-\frac{3}{10b}, -\frac{1}{4b}$

7. Solve : $12x^2 + a^2bx - 6a^4b^2 = 0$

(i) $-\frac{3a^2b}{4}, \frac{6a^2b}{9}$ (ii) $-a^2b, \frac{4a^2b}{9}$ (iii) $-\frac{3a^2b}{5}, \frac{6a^2b}{11}$ (iv) $-a^2b, \frac{6a^2b}{7}$ (v) $-\frac{a^2b}{2}, \frac{8a^2b}{9}$

8. Solve : $45x^2a^4b^2 + 7xa^2b - 12 = 0$

(i) $-\frac{3}{5a^2b}, \frac{4}{9a^2b}$ (ii) $-\frac{1}{a^2b}, \frac{4}{7a^2b}$ (iii) $-\frac{3}{7a^2b}, \frac{4}{11a^2b}$ (iv) $-\frac{1}{5a^2b}, \frac{2}{3a^2b}$ (v) $-\frac{1}{a^2b}, \frac{2}{9a^2b}$

9. Solve : $15x^2b^2 - 7a^2xb - 2a^4 = 0$

(i) $-\frac{a^2}{3b}, \frac{6a^2}{7b}$ (ii) $-\frac{3a^2}{5b}, \frac{4a^2}{9b}$ (iii) $-\frac{a^2}{5b}, \frac{6a^2}{9b}$ (iv) $\frac{a^2}{5b}, \frac{8a^2}{9b}$ (v) $-\frac{a^2}{7b}, \frac{6a^2}{11b}$

10. Solve : $8x^2a^4 + 10bxa^2 + 3b^2 = 0$

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

11. Solve : $72x^2 - 65ab^2x + 7a^2b^4 = 0$

(i) $-\frac{ab^2}{8}, \frac{5ab^2}{9}$ (ii) $\frac{ab^2}{6}, ab^2$ (iii) $\frac{3ab^2}{8}, ab^2$ (iv) $\frac{ab^2}{10}, \frac{7ab^2}{11}$ (v) $\frac{ab^2}{8}, \frac{7ab^2}{9}$

12. Solve : $21x^2 + 17ab^2x + 2a^2b^4 = 0$

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

13. Solve : $24x^2a^2 - 26b^2xa + 5b^4 = 0$

(i) $\frac{b^2}{6a}, \frac{5b^2}{8a}$ (ii) $\frac{b^2}{4a}, \frac{5b^2}{6a}$ (iii) $\frac{3b^2}{4a}, \frac{7b^2}{6a}$ (iv) $\frac{b^2}{2a}, \frac{5b^2}{4a}$ (v) $-\frac{b^2}{4a}, \frac{b^2}{2a}$

14. Solve : $56x^2b^4 + 25axb^2 - 4a^2 = 0$

(i) $\frac{3a}{8b^2}, -\frac{2a}{7b^2}$ (ii) $\frac{a}{8b^2}, -\frac{4a}{7b^2}$ (iii) $\frac{a}{6b^2}, -\frac{4a}{5b^2}$ (iv) $\frac{a}{10b^2}, -\frac{4a}{9b^2}$ (v) $-\frac{a}{8b^2}, -\frac{6a}{7b^2}$

15. Solve : $54x^2 - 45x + 30xb - 25b = 0$

(i) $\frac{5}{6}, -\frac{5b}{9}$ (ii) $\frac{1}{2}, -\frac{7b}{9}$ (iii) $\frac{5}{8}, -\frac{5b}{11}$ (iv) $\frac{5}{4}, -\frac{5b}{7}$ (v) $\frac{7}{6}, -\frac{b}{3}$

16. Solve : $6x^2b + 4xb + 3x + 2 = 0$

(i) $-\frac{4}{3}, -\frac{5}{6b}$ (ii) $-\frac{2}{5}, -\frac{3}{8b}$ (iii) $-\frac{2}{3}, -\frac{1}{2b}$ (iv) $-2, -\frac{3}{4b}$ (v) $0, -\frac{1}{6b}$

17. Solve : $4x^2 - 2ax - 2x + a = 0$

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

18. Solve : $18x^2 - 9x + 8xb - 4b = 0$

(i) $-\frac{1}{2}, -\frac{2b}{3}$ (ii) $\frac{1}{4}, -\frac{4b}{11}$ (iii) $\frac{3}{2}, -\frac{2b}{9}$ (iv) $1, -\frac{4b}{7}$ (v) $\frac{1}{2}, -\frac{4b}{9}$

19. Solve : $45x^2a + 9x + 25xa + 5 = 0$

(i) $\frac{1}{5a}, -\frac{1}{3}$ (ii) $-\frac{1}{5a}, -\frac{5}{9}$ (iii) $-\frac{1}{3a}, -\frac{5}{7}$ (iv) $-\frac{1}{7a}, -\frac{5}{11}$ (v) $-\frac{3}{5a}, -\frac{7}{9}$

20. Solve : $12x^2b + 4xb - 3x - 1 = 0$

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

Assignment Key

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