EduSahara™ Assignment

Name : Quadratic Equations1

Chapter : Quadratic Equations

Grade : ICSE Grade X

1. Solve : $40x^2 - 11abx - 21a^2b^2 = 0$

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

2. Solve : $12x^2b^2 - 16axb + 5a^2 = 0$

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

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

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

4. Solve : $16x^2 - 2bx - 3b^2 = 0$

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

5. Solve : $4x^2a^2 - 4xa + 1 = 0$

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

6. Solve : $18x^2b^2 - 19xb + 5 = 0$

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

7. Solve : $14x^2 + 17a^2bx + 5a^4b^2 = 0$

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

8. Solve : $56x^2a^4b^2 + 19xa^2b - 15 = 0$

(i) $\frac{1}{8a^2b}, -\frac{1}{a^2b}$ (ii) $\frac{3}{10a^2b}, -\frac{5}{9a^2b}$ (iii) $\frac{5}{8a^2b}, -\frac{3}{7a^2b}$ (iv) $\frac{1}{2a^2b}, -\frac{1}{a^2b}$ (v) $\frac{3}{8a^2b}, -\frac{5}{7a^2b}$

9. Solve : $6x^2b^2 - a^2xb - 2a^4 = 0$

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

10. Solve : $20x^2a^4 + 3bxa^2 - 9b^2 = 0$

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

11. Solve : $40x^2 - 49ab^2x + 15a^2b^4 = 0$

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

12. Solve : $12x^2 - 16ab^2x + 5a^2b^4 = 0$

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

13. Solve : $16x^2a^2 - 18b^2xa + 5b^4 = 0$

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

14. Solve : $16x^2b^4 + 8axb^2 - 3a^2 = 0$

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

15. Solve : $14x^2 + 4x - 7xb - 2b = 0$

(i) $-\frac{2}{5}, b$ (ii) $-\frac{2}{7}, -\frac{b}{2}$ (iii) $-\frac{4}{7}, -\frac{b}{2}$ (iv) $0, \frac{3b}{2}$ (v) $-\frac{2}{9}, -\frac{b}{4}$

16. Solve : $25x^2b - 5xb - 15x + 3 = 0$

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

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

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

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

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

19. Solve : $4x^2a - 2x - 2xa + 1 = 0$

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

20. Solve : $8x^2b + 4xb - 6x - 3 = 0$

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

Assignment Key

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