

EduSahara™ Learning Center Assignment**Grade : Class VIII, ICSE****Chapter : Quadratic Equations****Name : Quadratic Equations****Licensed To : Teachers and Students for non-commercial use**

1. Find the roots of the quadratic equation $(x^2 - 16x + 63) = 0$

(i) (10, 6) (ii) (11, 4) (iii) (9, 7) (iv) (10, 7) (v) (11, 6)

2. Find the roots of the quadratic equation $(x^2 + 6x + 9) = 0$

(i) (-2, -4) (ii) (0, -4) (iii) (0, -5) (iv) (-2, -3) (v) (-3, -3)

3. Find the roots of the quadratic equation $(12x^2 - 4x - 8) = 0$

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

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

(i) 5 (ii) 3 (iii) 1 (iv) 4 (v) 6

5. Solve: $\frac{(3x + 9)}{(2x + 18)} = \frac{(4x + 18)}{(4x + 1)}$

(i) $(23, (-\frac{15}{4}))$ (ii) $(21, (-\frac{17}{4}))$ (iii) $(21, (-\frac{15}{4}))$ (iv) $(21, (-\frac{9}{2}))$ (v) $(-21, \frac{15}{4})$

6. Solve: $\frac{(8x + 5)}{(7x + 6)} + \frac{10x}{(2x + 12)} = \frac{37}{8}$

(i) $(16, (-\frac{78}{85}))$ (ii) $(14, (-\frac{78}{83}))$ (iii) $(14, (-\frac{78}{85}))$ (iv) $(15, (-\frac{78}{85}))$ (v) $(14, (-\frac{16}{17}))$

7. Solve: $18x^2 + 23abx + 7a^2b^2 = 0$

$$(i) -ab, -ab \quad (ii) -\frac{7ab}{11}, -\frac{ab}{4} \quad (iii) -\frac{7ab}{9}, -\frac{ab}{2}$$

$$(iv) -ab, -\frac{3ab}{2} \quad (v) -\frac{5ab}{9}, -\frac{ab}{2}$$

8. Find the roots of the quadratic equation $(x^2 - 12x + 32) = 0$

$$(i) (8, 4) \quad (ii) (9, 3) \quad (iii) (10, 2) \quad (iv) (9, 4) \quad (v) (10, 3)$$

9. Find the roots of the quadratic equation $(x^2 + 9x + 18) = 0$

$$(i) (-2, -6) \quad (ii) (-3, -6) \quad (iii) (0, -8) \quad (iv) (0, -7) \quad (v) (-2, -7)$$

10. Find the roots of the quadratic equation $(18x^2 - 32x - 8) = 0$

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

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

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

$$12. \text{ Solve: } \frac{(2x + 6)}{(x + 3)} = \frac{(3x + 6)}{(x + 21)}$$

$$(i) (-3, 36) \quad (ii) (3, -36) \quad (iii) (-3, 35) \quad (iv) (-3, 34) \quad (v) (-1, 36)$$

$$13. \text{ Solve: } \frac{(5x + 6)}{4x} + \frac{(2x + 4)}{(3x + 16)} = \frac{40}{21}$$

$$(i) (38, 18) \quad (ii) (\frac{112}{3}, 16) \quad (iii) (\frac{112}{3}, 17) \quad (iv) (\frac{186}{5}, 18) \quad (v) (\frac{112}{3}, 18)$$

14. Find the roots of the quadratic equation $(18x^2 + 33x + 5) = 0$

- (i) $(\frac{-1}{8}, -3)$ (ii) $(\frac{-1}{6}, \frac{-5}{3})$ (iii) $(\frac{1}{6}, -3)$ (iv) $(\frac{-1}{8}, \frac{-5}{3})$ (v) $(\frac{1}{6}, \frac{-7}{3})$
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15. Solve the quadratic equation $x + \frac{24}{x} = 11$

- (i) $(11, 0)$ (ii) $(9, 2)$ (iii) $(9, 3)$ (iv) $(11, 2)$ (v) $(8, 3)$
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16. Find the roots of the quadratic equation $(15x^2 + 3x - 12) = 0$

- (i) $(\frac{6}{5}, -2)$ (ii) $(\frac{4}{7}, -1)$ (iii) $(\frac{6}{5}, -3)$ (iv) $(\frac{4}{7}, -2)$ (v) $(\frac{4}{5}, -1)$
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17. Solve the quadratic equation $x + \frac{32}{x} = -12$

- (i) $(-4, -8)$ (ii) $(-3, -9)$ (iii) $(-1, -11)$ (iv) $(-1, -9)$ (v) $(-3, -8)$
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Assignment Key

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