EduSahara™ Learning Center Assignment

Grade : Class X, CBSE
Chapter : Quadratic Equations
Name : Quadratic Equations

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1. Find the discriminant of the quadratic equation $(x^2 - 25) = 0$

   (i) 99 (ii) 100 (iii) 101 (iv) 103 (v) 97

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2. Find the discriminant of the quadratic equation $(3x^2 - 2x - 1) = 0$

   (i) 19 (ii) 14 (iii) 15 (iv) 17 (v) 16

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3. Find the discriminant of the quadratic equation $(x^2 - 5x + 19) = 0$

   (i) -51 (ii) -52 (iii) -48 (iv) -50 (v) -53

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4. Find the discriminant of the quadratic equation $(15x^2 - 31x + 39) = 0$

   (i) -1379 (ii) -1380 (iii) -1382 (iv) -1378 (v) -1376

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5. Find the discriminant of the quadratic equation $(x^2 + 10x + 25) = 0$

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

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

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

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

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

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

   (i) (1 , -8) (ii) (0 , -6) (iii) (0 , -5) (iv) (1 , -6) (v) (-1 , -5)

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9. Find the roots of the quadratic equation $(56x^2 - 24x) = 0$

(i) ($\frac{5}{7}$, -2) (ii) ($\frac{5}{7}$, -1) (iii) ($\frac{1}{3}$, -1) (iv) ($\frac{3}{7}$, 0) (v) ($\frac{1}{3}$, 0)

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10. Find the roots of the quadratic equation $(45x^2 + 35x - 10) = 0$

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

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11. The sum of the roots of the quadratic equation $(x^2 + 14x + 49) = 0$ is

(i) -17 (ii) -13 (iii) -15 (iv) -11 (v) -14

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12. The sum of the roots of the quadratic equation $(x^2 - 9x + 18) = 0$ is

(i) 12 (ii) 6 (iii) 9 (iv) 8 (v) 10

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13. The sum of the roots of the quadratic equation $(36x^2 + 96x + 64) = 0$ is

(i) ($\frac{-12}{5}$) (ii) ($\frac{-8}{3}$) (iii) -2 (iv) ($\frac{-10}{3}$) (v) -4

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14. The sum of the roots of the quadratic equation $(20x^2 - 39x + 7) = 0$ is

(i) $\frac{41}{22}$ (ii) $\frac{41}{20}$ (iii) $\frac{37}{20}$ (iv) $\frac{37}{18}$ (v) $\frac{39}{20}$

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15. The product of the roots of the quadratic equation $(x^2 - 18x + 81) = 0$ is

(i) 78 (ii) 84 (iii) 82 (iv) 81 (v) 80

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16. The product of the roots of the quadratic equation $(x^2 - 2x - 63) = 0$ is

(i) -66 (ii) -64 (iii) -60 (iv) -62 (v) -63

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17. The product of the roots of the quadratic equation $(49x^2 - 70x + 25) = 0$ is

(i) $\frac{25}{49}$ (ii) $\frac{27}{49}$ (iii) $\frac{25}{47}$ (iv) $\frac{25}{51}$ (v) $\frac{23}{49}$

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18. The product of the roots of the quadratic equation $(28x^2 - 30x + 8) = 0$ is

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

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19. Find the roots of the quadratic equation $(-x^2 + 4x + 6) = 0$

(i) $((2 - \sqrt[4]{10}) , (2 + 10))$

(ii) $((5 - \sqrt{10}) , (0 + \sqrt{10}))$

(iii) $((2 - \sqrt[4]{10}) , (2 + \sqrt{10}))$

(iv) $((2 - \sqrt{10}) , (2 + \sqrt{10}))$

(v) $((5 - \sqrt{10}) , (2 + 10))$

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20. Find the quadratic equation whose roots are $(3 + \sqrt{3})$ and $(3 - \sqrt{3})$

(i) $(x^2 - 9x + 6) = 0$ (ii) $(-6x + 6) = 0$

(iii) $(2x^2 - 6x + 6) = 0$ (iv) $(x^2 - 6x + 6) = 0$

(v) $(x^2 - 3x + 6) = 0$

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21. Find the quadratic equation with roots $((\frac{-7}{9}) , (\frac{-7}{9}))$

(i) $(81x^2 + 108x + 35) = 0$

(ii) $(9x^2 + 16x + 7) = 0$

(iii) $(81x^2 + 126x + 49) = 0$

(iv) $(99x^2 + 140x + 49) = 0$

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22. Find the quadratic equation with roots $(\frac{1}{5} , \frac{6}{7})$

(i) $(35x^2 - 47x + 8) = 0$

(ii) $(35x^2 - 37x + 6) = 0$

(iii) $(21x - 25x + 6) = 0$

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(iv) $(35x^2 - 23x - 6) = 0$

(v) $(15x^2 - 13x + 2) = 0$

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23. Find the quadratic equation with roots $(7 , 7)$

(i) $(x^2 - 16x + 63) = 0$

(ii) $(x^2 - 11x + 28) = 0$

(iii) $(x^2 - 15x + 56) = 0$

(iv) $(x^2 - 13x + 42) = 0$

(v) $(x^2 - 14x + 49) = 0$

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24. Find the quadratic equation with roots $(7 , -1)$

(i) $(x^2 - 8x + 7) = 0$

(ii) $(x^2 - 4x - 5) = 0$

(iii) $(x^2 - 6x - 7) = 0$

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

(v) $(x^2 - 5x - 6) = 0$

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25. Find the quadratic equation, the sum of whose roots is -18 and product is 81

(i) $(18x + 81) = 0$

(ii) $(2x^2 + 18x + 81) = 0$

(iii) $(x^2 + 15x + 81) = 0$

(iv) $(x^2 + 21x + 81) = 0$

(v) $(x^2 + 18x + 81) = 0$

26. Find the quadratic equation, the sum of whose roots is 14 and product is 48

(i) $(x^2 - 17x + 48) = 0$

(ii) $(x^2 - 12x + 48) = 0$

(iii) $(-14x + 48) = 0$

(iv) $(2x^2 - 14x + 48) = 0$

(v) $(x^2 - 14x + 48) = 0$

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27. Find the quadratic equation, the sum of whose roots is $\frac{4}{3}$ and product is $\frac{4}{9}$

(i) $(81x^2 - 108x + 36) = 0$

(ii) $(81x^2 - 111x + 36) = 0$

(iii) $(81x^2 - 106x + 36) = 0$

(iv) $(80x^2 - 108x + 36) = 0$

(v) $(82x^2 - 108x + 36) = 0$

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28. Find the quadratic equation, the sum of whose roots is $(\frac{-7}{6})$ and product is $\frac{1}{6}$

(i) $(-17x^2 - 21x - 3) = 0$

(ii) $(-18x^2 - 18x - 3) = 0$

(iii) $(-18x^2 - 23x - 3) = 0$

(iv) $(-19x^2 - 21x - 3) = 0$

(v) $(-18x^2 - 21x - 3) = 0$

Assignment Key

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