Algebra I

2nd Edition

Workbook

For Math

Algebra I Bench Mark 43 Practice

Write a quadratic equation with the given information .

1. The x-intercepts are (-3, 0) and (7, 0).

2. The roots are 5 and 8.

3. The zeros are -6 and 4.

4. The x-intercepts are (9, 0) and (3, 0).

5. The roots are -8 and -5.

6. The zeros are 10 and -7.

7. The x-intercepts are (-2, 0) and (-4, 0).

8. The roots are -1 with a multiplicity of 2.
i.e. x = -1 and x = -1

9. The zeros are 0 and -3.

10. The x-intercepts are (0, 0) and (6, 0).

11. The roots are -8 and 8.

12. The zeros are 3 and -3.

13. The x-intercepts are $(\frac{-3}{2}, 0)$ and $(\frac{5}{7}, 0)$.

14. The roots are $\frac{3}{4}$ and $\frac{5}{2}$.

15. The zeros are $\frac{-5}{6}$ and $\frac{-5}{8}$.

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Graph.

1. $y = x^2 - 2x - 3$

2. $y = x^2 + 2x - 3$

3. $y = 2x - x^2$

4. $y = x^2 - 8x + 15$

5. $y = x^2 - 8x + 12$

6. $y = x^2 + 4x - 5$

7. $y = -x^2 - 10x - 24$

8. $y = 4 - x^2$

9. $y = x^2 - 4$

10. $y = 4x^2 + 8x - 5$

11. $y = -4x^2 + 4x + 3$

12. $y = -2x^2 + 4x - 3$

13. $y = x^2 + 2x + 4$

14. $y = x^2 - 6x + 10$

15. $y = -x^2 - 4x - 5$

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Use the discriminant to determine the number of x -intercepts.

1. $y = x^2 + 6x + 8$

2. $y = x^2 - 6x + 9$

3. $y = x^2 + 4$

4. $y = 5x^2 - 6x$

5. $y = 3x^2 + 2x - 1$

6. $y = 3x^2 + 2x + 1$

7. $y = 9x^2 - 12x + 4$

8. $y = 4x^2 - 3x + 2$

9. $y = x^2 - 3$

10. $y = -2x^2 + 5x - 3$

11. $y = -3x^2 + 5x + 2$

12. $y = -4x^2 - 5x - 2$

13. $y = -5x^2 - 7x - 2$

14. $y = -4x^2 + 12x - 9$

15. $y = -x^2 - 6$