

Algebra I

2nd Edition

Workbook with Keys

S*implified*
solutions
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. $y = x^2 - 2x - 3$

9. $y = x^2 - 4$

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

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

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

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

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

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

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

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

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

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

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

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

8. $y = 4 - x^2$

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

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

9. $y = x^2 - 3$

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

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

3. $y = x^2 + 4$

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

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

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

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

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

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

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

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

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

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

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1. $x^2 - 4x - 21 = 0$

9. $x^2 + 3x = 0$

2. $x^2 - 13x + 40 = 0$

10. $x^2 - 6x = 0$

3. $x^2 + 2x - 24 = 0$

11. $x^2 - 64 = 0$

4. $x^2 - 12x + 27 = 0$

12. $x^2 - 9 = 0$

5. $x^2 + 13x + 40 = 0$

13. $14x^2 + 11x - 15 = 0$

6. $x^2 - 3x - 70 = 0$

14. $8x^2 - 26x + 15 = 0$

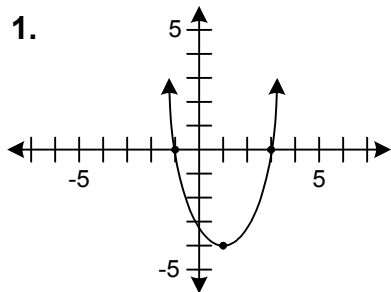
7. $x^2 + 6x + 8 = 0$

15. $48x^2 + 70x + 25 = 0$

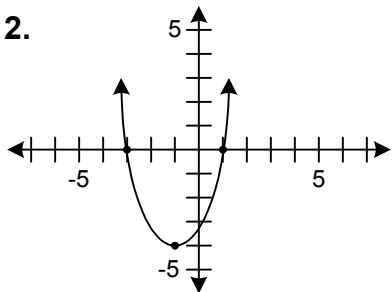
8. $x^2 + 2x + 1 = 0$

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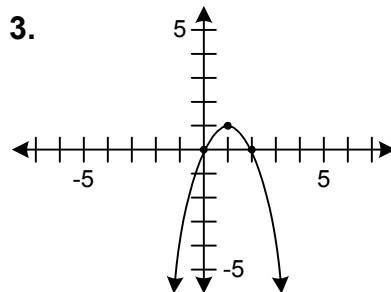
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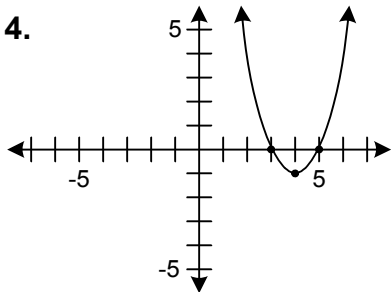
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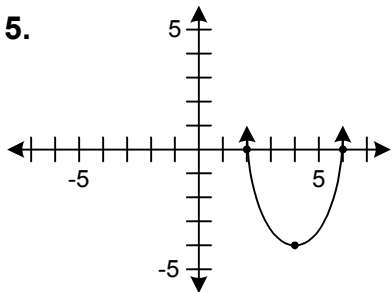
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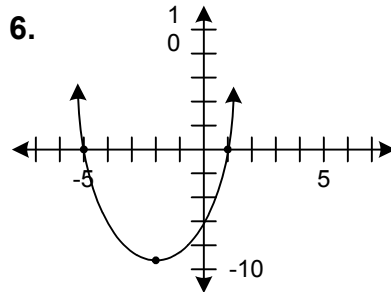
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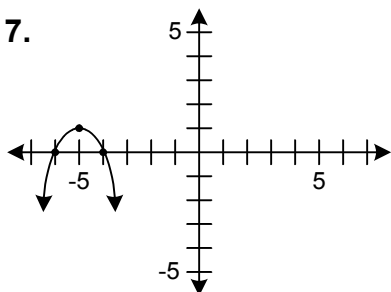
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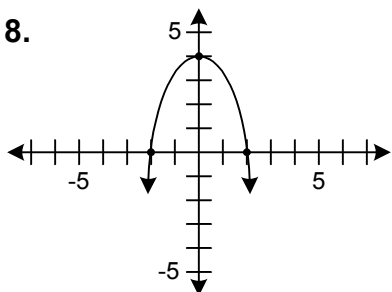
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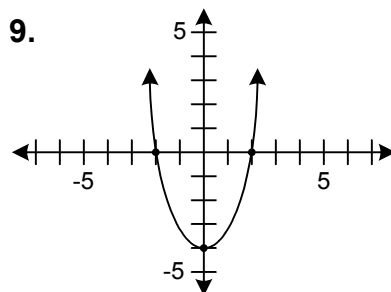
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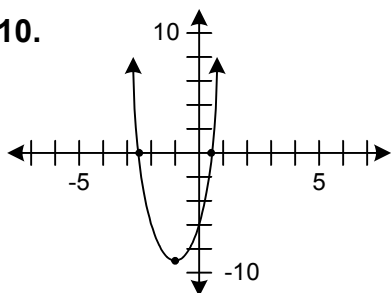
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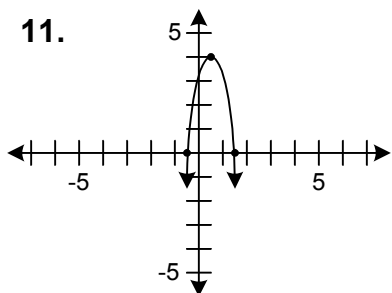
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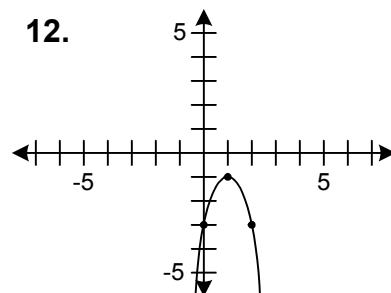
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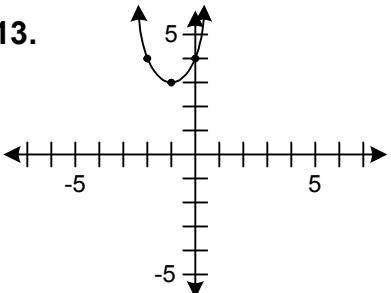
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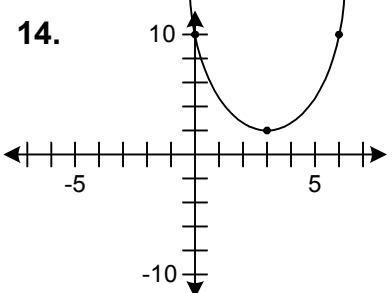
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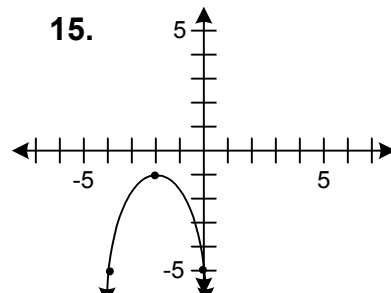
13.



14.



15.



Algebra I Bench Mark 45 Practice Key

1. 2

9. 2

2. 1

10. 2

3. 0

11. 2

4. 2

12. 0

5. 2

13. 2

6. 0

14. 1

7. 1

15. 0

8. 0