Name_____ Class_____ Date_____

✔ Checkpoint Quiz 1
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Use with Lessons 10-1 through 10-4.

1. Graph the quadratic function $y = x^2 - 2$.

Graph each function. Label the axis of symmetry and the vertex.

2. $y = 6x^2 - 12x$

3. $f(x) = x^2 + x - 12$

4. A ball is thrown into the air with an initial upward velocity of 60 ft/s. Its height h in feet after t seconds is given by the function $h = -16t^2 + 60t + 6$.

    a. After how many seconds will the ball hit the ground?

    b. What will the height be at $t = 3$ seconds?

Solve each equation by finding square roots.

5. $x^2 - 121 = 0$

6. $5x^2 - 245 = 0$

7. Solve $4x^2 - 36 = 0$ by graphing the related function.

Solve by factoring.

8. $m^2 + 8m + 7 = 0$

9. $c^2 = 8c$

10. $n^2 + 2n - 24 = 0$

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Name_____ Class_____ Date_____

✔ Checkpoint Quiz 2
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Use with Lessons 10-5 through 10-8.

Solve each equation by completing the square. If necessary, round to the nearest hundredth.

1. $r^2 + 6r = 16$

2. $m^2 - 12m + 1 = 0$

Use the quadratic formula to solve each equation. If necessary, round answers to the nearest hundredth.

3. $x^2 - 4x - 7 = 0$

4. $2x^2 - 5x - 12 = 0$

Use any method you choose to solve each equation. If necessary, round to the nearest hundredth.

5. $x^2 + 6x + 5 = 0$

6. $3x^2 - 12x = -1$

7. $f^2 + 12f = 0$

Find the number of solutions of each equation.

8. $5x^2 - 4x + 6 = 0$

9. $3a^2 - 4a - 5 = 0$

10. Which kind of function best models the data in the table? Write an equation to model the data.

x	y
0	5
1	7
2	9
3	11
4	13

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30 Checkpoint Quizzes

Algebra 1 Chapter 10