

EXTRA PRACTICE 29
The Quadratic Formula And Applications
Use after Section 10.3

Name _____

Solve. (See Section 10.3 for examples.)

1. If a polygon has 7 sides, how many diagonals does it have? _____
2. A dodecagon is a figure with 12 sides. How many diagonals does a dodecagon have?

3. A polygon has 27 diagonals. How many sides does it have? _____
4. The height of the Eiffel Tower is 984 ft. How long would it take an object to fall from the top? _____
5. How long would it take for an object to fall from the top of a 1215 ft building?

6. The hypotenuse of a right triangle is 35 ft long. One leg is 7 ft longer than the other. Find the lengths of the legs. _____

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7. The length of a rectangle is 3 cm greater than the width. The area is 154 cm^2 . Find the length and the width. _____
8. The length of a rectangle is 5 cm greater than the width. The area is 204 cm^2 . Find the length and the width. _____
9. A 26-ft long guy wire is anchored 24 ft from the base of a telephone pole. How far up the pole does the wire reach? _____
10. The area of a right triangle is 29.4 cm^2 . One leg is 1.4 cm longer than the other. Find the lengths of the legs. _____
11. \$2500 was invested at interest rate r , compounded annually. In 2 years, it grew to \$2704. What was the interest rate? _____
12. \$6000 was invested at interest rate r , compounded annually. In 2 years, it grew to \$7063.35. What was the interest rate? _____