

QUADRATIC APPLICATIONS

Guided Notes

ESSENTIAL QUESTION

How do I solve real-world problems involving quadratic equations?

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- To solve real world-problems involving quadratic equations, read the question and write or identify the _____.
- If you have to write the equation, _____ the variables can help.
- Solve the quadratic equation using the _____.
- Decide if one or both of the solutions work in the context of the original problem. You may need to _____ the solution(s) to answer the question.
- _____ your answer for reasonableness.

1. Find the dimensions of the rectangle below if the area is 65 ft^2 .



2. The length of a rectangle is $x + 7$ inches and the width is $x - 1$ inches. Find the measure of the length & width if the area is 128 square inches.

3. The length of a rectangular rug is 6 yards less than its width. Find the dimensions of the rug if its area is 27 square yards.

4. The height of a triangle is 3 less than its base. If the area of the triangle is 14 cm^2 , find the length of the height.

5. The product of 2 positive consecutive integers is 72. Find the integers.

6. Find two positive consecutive odd integers such that the square of the first, added to 3 times the second, is 24.