

Word Problems involving Quadratic Equations

Steps

- 1) READ THE PROBLEM
- 2) Draw a picture if it helps
- 3) Make a variable and write down what it stands for
- 4) Write an equation involving the variable
- 5) Solve the equation
- 6) Interpret and check the result. Make sure you answered the question that was asked.

Example

Cliff divers at Waimea Falls in Hawaii dive from a platform 64 feet above the water. The height of the diver in feet after t seconds in free fall is given by $h = 64 - 16t^2$.

After how many seconds does the diver hit the water?

Example

One leg of a rectangle is $2x + 1$ cm long. The other leg is $x + 3$ cm. If the area of the rectangle is 12 cm^2 , find the length of each side.