## 5.14 Applications of Quadratic Equations

Continuation of Quadratic Equation notes

**Ex 7:** Your company is designing a steel frame in the shape of a rectangle. The Area is 1,280 cm<sup>2</sup>. The length is 5 times the width. Calculate the dimensions of the frame.

## HW #3:

If an object is propelled upward from a height of h feet at an initial velocity of v feet per second, then its height S after t seconds is given by the equation  $S = -16t^2 + vt + h$ , where S is in feet. If the object is propelled from a height of 12 feet with an initial velocity of 96 feet per second, its height S is given by the equation  $S = -16t^2 + 96t + 12$ .

After how many seconds is the height 120 feet?