

New Jersey City University
Intermediate Algebra
Peer Led Team Learning Workshop 6B
More about Factoring (Applied Problems)

1. Section 5.8 – Geometry problem

In the Atlantic Ocean, a certain fishing area is in the shape of a rectangle. The length of the rectangle is 4 miles longer than triple its width.

- a) If we denote the width as x , express the length in terms of width.
- b) If the area of this land is 126 square miles, build an equation about the x .
- c) Find the length and the width.

2. Section 5.8 – Business problem

A company that manufactures typewriter ribbons knows that the number of ribbons it can sell each week, x , is related to the price p per ribbon by the equation $x = 1020 - 86p$. The revenue equation is $R = xp$.

- a) Express the Revenue as a function of the unit price p .
- b) If they want the weekly revenue to be \$3600, at what price the company should sell the ribbons?