## 3.5: Problems Giving Rise to QEs

A wide variety of problems can be formulated and solved using quadratic equations

Example \#1: The sum of the squares of two consecutive odd integers is 290. Find the integers.

Example \#2: The sum of a number and its reciprocal is 6.41. What is the number?

Example \#3: A rectangular solar panel is 2.5 m larger then it is wide. If the total area is $21 \mathrm{~m}^{2}$, then find the dimensions.

Example \#4: A 5x7 photograph is to be matted using a matte of uniform width. Determine the width of the matte if the area of the matte is equal to the area of the photograph.

