

**LessonTitle: Rectangle Problem and Dilemma****Pre 7.8b****Utah State Core Standard and Indicators** Pre-algebra Standard 4 Process Standards 1-4**Summary**

In these lessons, students solve problems in which they must differentiate between rectangle areas and perimeters. These problems are engaging and worthwhile learning experiences.

**Enduring Understanding**

Problem solving enables differentiation between perimeter as a linear measure and area as two dimensional measure.

**Essential Questions****Skill Focus**

- Area and perimeter
- Problem solving
- Reasoning and proof

**Vocabulary Focus****Assessment****Materials****Launch****Explore**

- What is the difference between area and perimeter?
- In the problem solving process, how can you prove you have all the possibilities?

**Summarize****Apply**

## Geo 7.8b

## Rectangle Problem

Read all the clues carefully and decide what size rectangle to draw for each of the four figures. Record your rectangles below.

After all four rectangles have been drawn, the directions should be read aloud to be sure that all four rectangles fit the given directions.

- Rectangle #1 has a perimeter the same as that of Rectangle #2. Rectangle #1 is a square.
- Rectangle #2 has an area of 24 square units. It is as close to a square as possible for that area and has whole-number measurements.
- Rectangle #3 has a perimeter equal to the measure of the area of rectangle #2. The length is 3 times the width.
- Rectangle #4 has two different odd integers as length and width; each is 1 unit greater than the length and width of rectangle #2.



