

**LESSON**  
**1•10****Using a Graph to Find the Largest Area****Math Message**

Suppose you have enough material for 22 feet of fence. You want to enclose the largest possible rectangular region with this fence.

1. If you know the perimeter and length of a rectangle, how can you find its width?

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2. The table below lists the lengths of some rectangles with a perimeter of 22 feet. Fill in the missing widths and areas. You may want to draw the rectangles on your grid paper. Let the side of each grid square represent 1 foot.

<b>Length (ft)</b>	1	2	3	4	5	6	7	8	9	10
<b>Width (ft)</b>	10	9								
<b>Perimeter (ft)</b>	22	22	22	22	22	22	22	22	22	22
<b>Area (ft<sup>2</sup>)</b>	10	18					28			