

# Unit 6 Lesson 1: A Different Kind of Change

## 1 Notice and Wonder: Three Tables (Warm up)

### Student Task Statement

Look at the patterns in the 3 tables. What do you notice? What do you wonder?

$x$	$y$
1	0
2	5
3	10
4	15
5	20

$x$	$y$
1	3
2	6
3	12
4	24
5	48

$x$	$y$
1	8
2	11
3	10
4	5
5	-4

## 2 Measuring a Garden

### Student Task Statement

Noah has 50 meters of fencing to completely enclose a rectangular garden in the backyard.

1. Draw some possible diagrams of Noah's garden. Label the length and width of each rectangle.

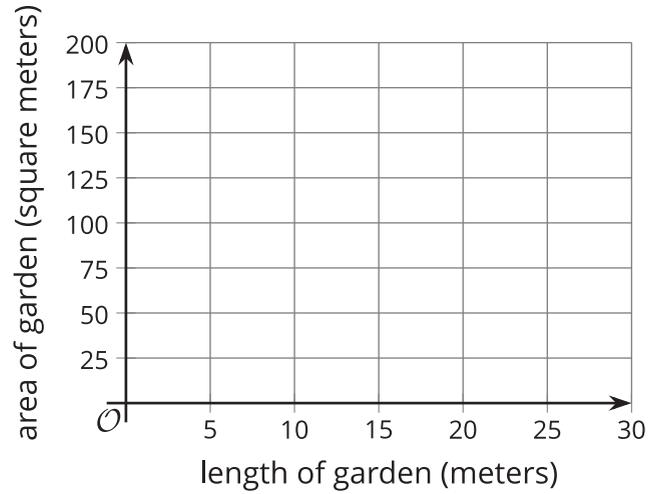


2. Find the length and width of such a rectangle that would produce the largest possible area. Explain or show why you think that pair of length and width gives the largest possible area.

### 3 Plotting the Measurements of the Garden

#### Student Task Statement

1. Plot some values for the length and area of the garden on the coordinate plane.



2. What do you notice about the plotted points?
3. The points  $(3, 66)$  and  $(22, 66)$  each represent the length and area of the garden. Plot these 2 points on coordinate plane, if you haven't already done so. What do these points mean in this situation?
4. Could the point  $(1, 25)$  represent the length and area of the garden? Explain how you know.