

Challenge Problems

7.1

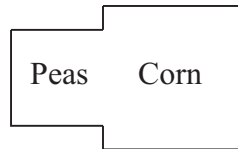
NAME _____

Module 7 Ratio, Proportion, and Percent
Lesson 1 Square Roots

Set 1

1

The diagram shows Melinda's vegetable garden. The peas are in a square region with an area of 25 square feet. The corn is in a square region with an area of 49 square feet. How many feet of fencing enclose Melinda's garden?



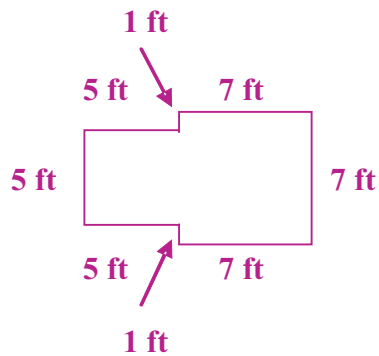
2

Arrange the whole numbers from one to 15, inclusive, in a row so that the sum of any two adjacent numbers is a perfect square.

Possible Answers

Set 1

- Using the square root of 25, Melinda knows that the square containing peas measures five feet on each side. Using the square root of 49, she knows that the square containing corn measures seven feet on each side. On each of these squares, three sides are fenced. The common side is not fenced except for the one-foot segments. So, the total amount of fencing needed is 38 feet.



$$5 + 5 + 5 + 1 + 1 + 7 + 7 + 7 = 38 \text{ feet}$$

- 8, 1, 15, 10, 6, 3, 13, 12, 4, 5, 11, 14, 2, 7, 9