

# MY Homework

## Lesson 10

### Problem Solving: Draw a Diagram

## Homework Helper

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Gina's family built a deck in the shape of a hexagon. They placed posts on each outside corner. For a party, they will hang strings of decorative lights from each post to every other post. How many strings of lights are needed?

### 1 Understand

#### What facts do you know?

- The deck has six corners.
- One string of lights will be hung from each corner to every other corner.

#### What do you need to find?

- how many strings of lights are needed

### 2 Plan

Draw a diagram to solve the problem.

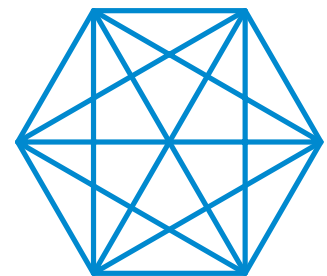
### 3 Solve

Draw a hexagon.

Draw lines from each corner to every other corner. Each line represents a string of decorative lights.

Count the lines. There are 15 lines drawn.

So, Gina's family needs 15 strings of lights.



### 4 Check


#### Is my answer reasonable?

The diagram shows 9 lines inside the hexagon plus 6 lines connecting each side of the hexagon. Since  $9 + 6 = 15$ , the answer is reasonable.



# Problem Solving

Solve each problem by drawing a diagram.

- 1. PRACTICE**  **Model Math** Martina and Charlotte are sharing a pizza. The pizza is cut into eight pieces. Martina ate a quarter of the pizza. Charlotte ate 3 pieces. How many pieces are left?
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- 2.** Five friends are having a tennis tournament. Each friend will play the other four friends once. How many matches will be played?
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- 3.** A rectangular bedroom floor has an area of 100 square feet and a length of 10 feet. What is the perimeter of the floor?
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- 4.** Alexander is riding his bicycle to school. After one mile, he is a third of the way there. How much farther does he have to ride?
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- 5.** Marjorie has 28 feet of trim to use as edging on a rectangular blanket she wants to make. What is the length and width of two blanket sizes she could make.
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My Work!