Enrichment Packet #22

Due: Monday

NAME: _____

Name _____

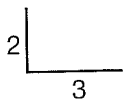
Enrichment
14-6

All the Way Around

Visual Thinking

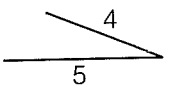
For each exercise, complete the figure by drawing a polygon with the perimeter shown. Write the length of each side of your polygon.

1.



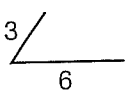
$P = 10$

2.



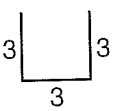
$P = 11$

3.



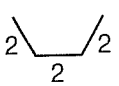
$P = 18$

4.



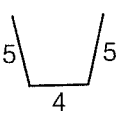
$P = 14$

5.



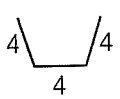
$P = 12$

6.



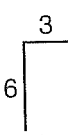
$P = 21$

7.



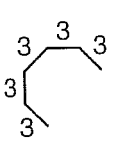
$P = 20$

8.



$P = 22$

9.

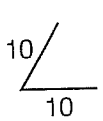


$P = 24$

10.

$P = 30$

11.



$P = 30$

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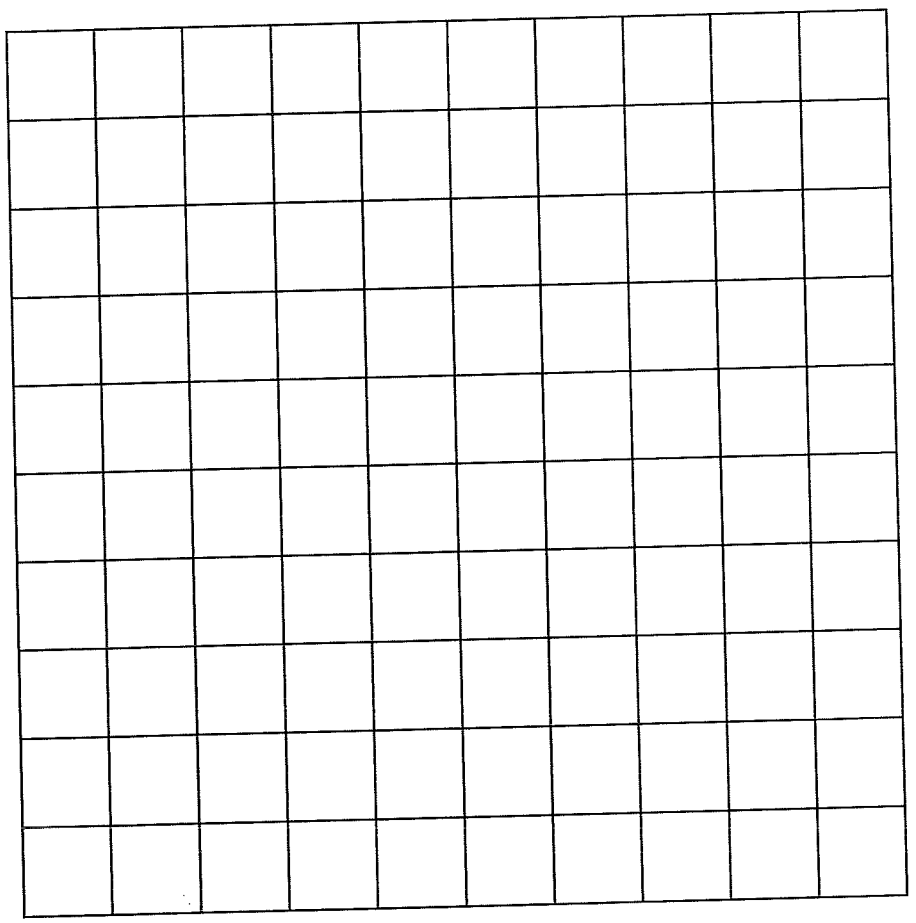
Area by Design

Patterns

On the grid below, make a three-color design so that:

- the area colored blue is twice as great as the area colored red;
- the area colored green is three times as great as the area colored blue.

Cover as much of the grid as you can. (All squares might not be colored.)



Write the area covered by your design.

red _____ square units

blue _____ square units

green _____ square units

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Rectangular Recreation

Reasoning

Suppose you are building a fence for a garden in your yard. Your yard is 50 ft wide and has an area of 500 square ft.

You have 88 ft of garden fencing, so your garden has to have a perimeter of 88 feet. How big an area would you set aside for your garden?

1. Suppose you made your garden 5 feet wide.
   a. What would its length be? _____
   b. What would its area be? _____
   c. What would be the area of the leftover space in the yard? _____
2. Suppose you made your garden 10 feet wide.
   a. What would its length be? _____
   b. What would its area be? _____
   c. What would be the area of the leftover space in the yard? _____
3. Suppose you made your garden 35 feet wide.
   a. What would its length be? _____
   b. What would its area be? _____
   c. What would be the area of the leftover space in the yard? _____
4. Suppose you made your garden 41 feet wide.
   a. What would its length be? _____
   b. What would its area be? _____
   c. What would be the area of the leftover space in the yard? _____
5. About how wide would you make your garden? Explain your reasoning.

_____

_____

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Tournament Time

Reasoning

Valleyview School is holding a half-court basketball tournament. Each team in the tournament has three players. Each time a team loses, the team is eliminated from the tournament. So, half of the teams are eliminated each round.

1. Thirty-two teams sign up for the tournament. How many players are taking part in all?

   _____

2. How many games will be played until there is one winning team left?

   _____

3. Two games can be played on one basketball court at the same time. The Valleyview School playground has 7 basketball courts.

   a. How many players can play at once?

   _____

   b. How many teams out of the 32 in the tournament can play at once?

   _____

4. Each round of a tournament eliminates half the teams playing.

   a. How many rounds must be played before a tournament with 64 teams ends with a single team winner?

   _____

   b. How many games in all will be played?

   _____

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