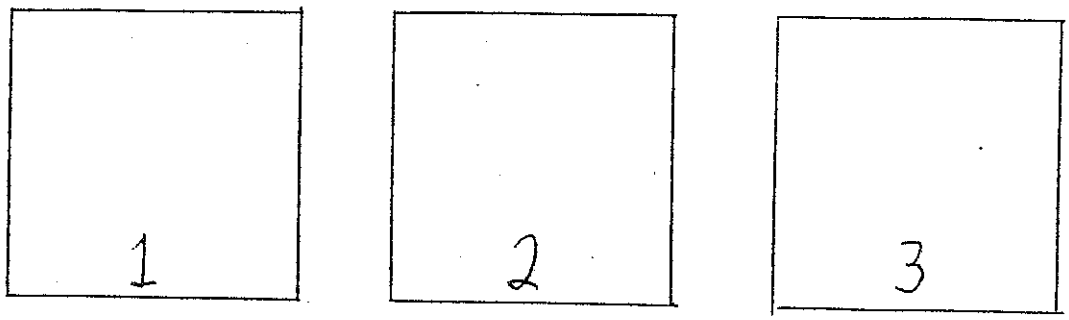
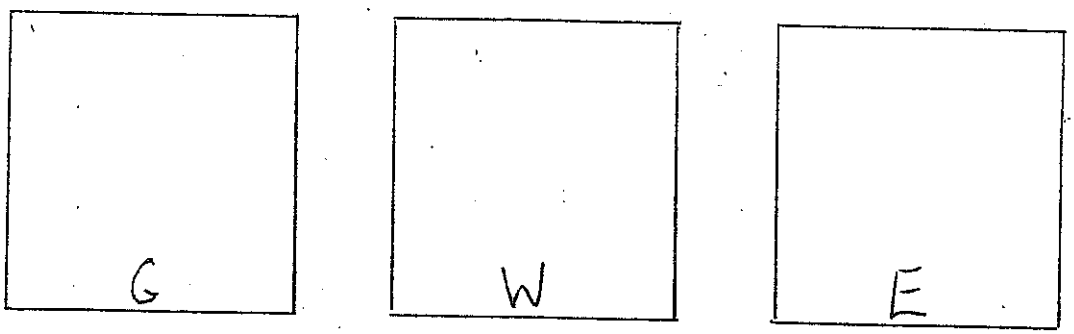
PFS 33-3

name

Problem of the Week





Each house needs gas, electric and water hook-ups. Can you draw lines to connect the utilities to each house? Rule: No utility lines may cross!!

If you think it's impossible can you explain why?

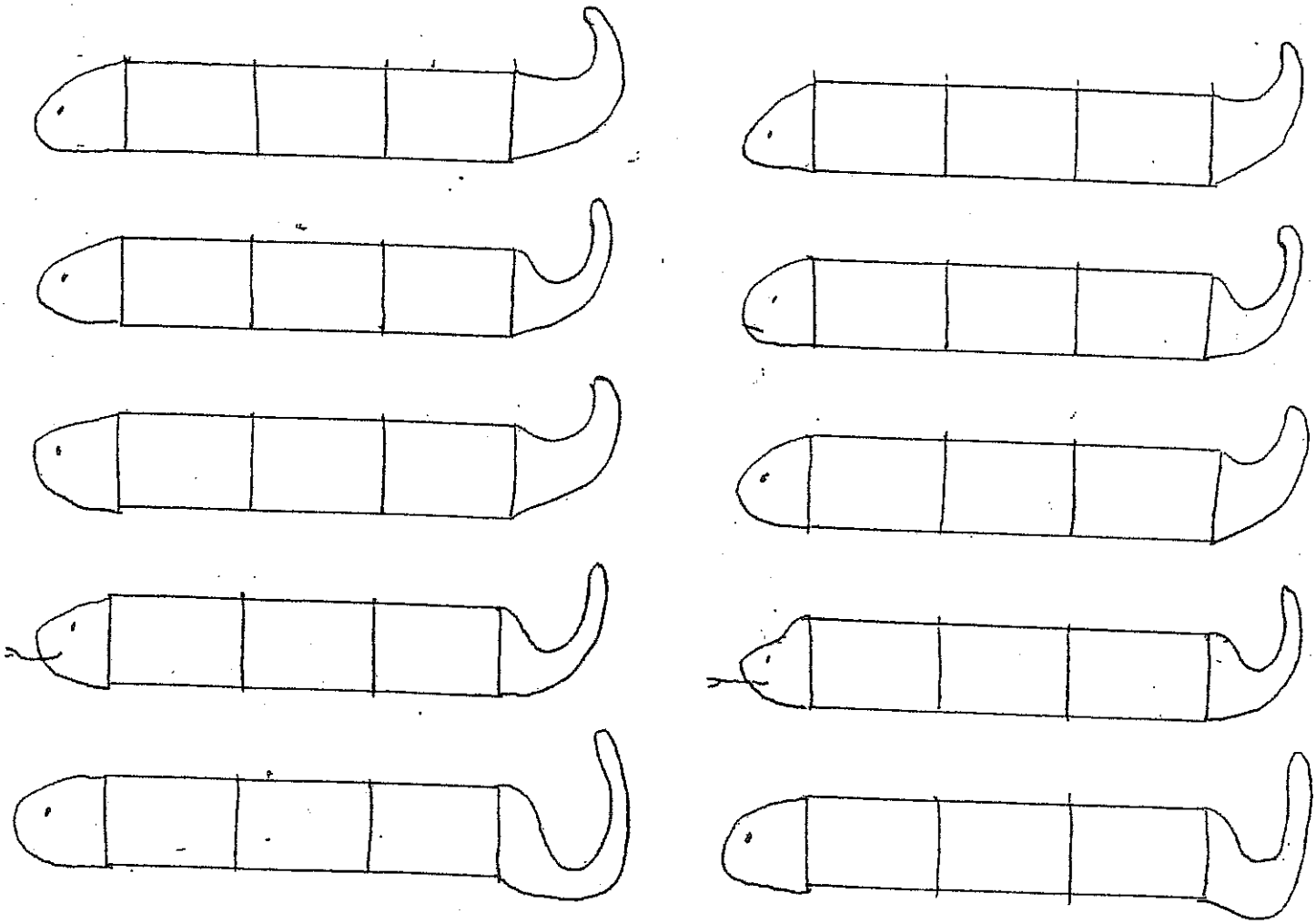
Would this problem work differently on different surfaces? (e.g. a sphere)

PFS 33-4

Name

Problem of the Week

Here are ten snakes. Using two colors, one to each rectangle, how many different snakes can you make?



What if we use 3 or more colors?

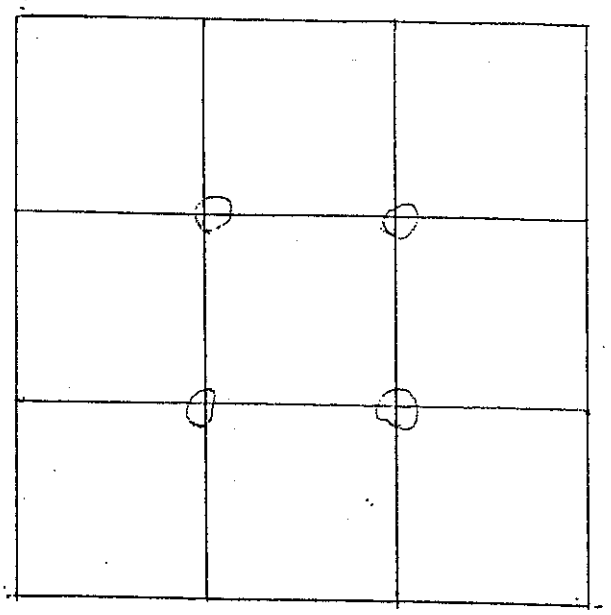
What if each snake has 4 or more rectangles?

What if the snakes swallowed their tails?

PFS 33-5

11/11/19

Problem of the Week



1. How many squares are there in the pattern above? (Don't forget the 2" x 2" and 3" x 3" squares.)

2. How many squares (of all sizes) are there in an 8 x 8 checkerboard?

3 How many squares (of all sizes) in a 20 x 20 checkerboard? (Is there a shortcut?)

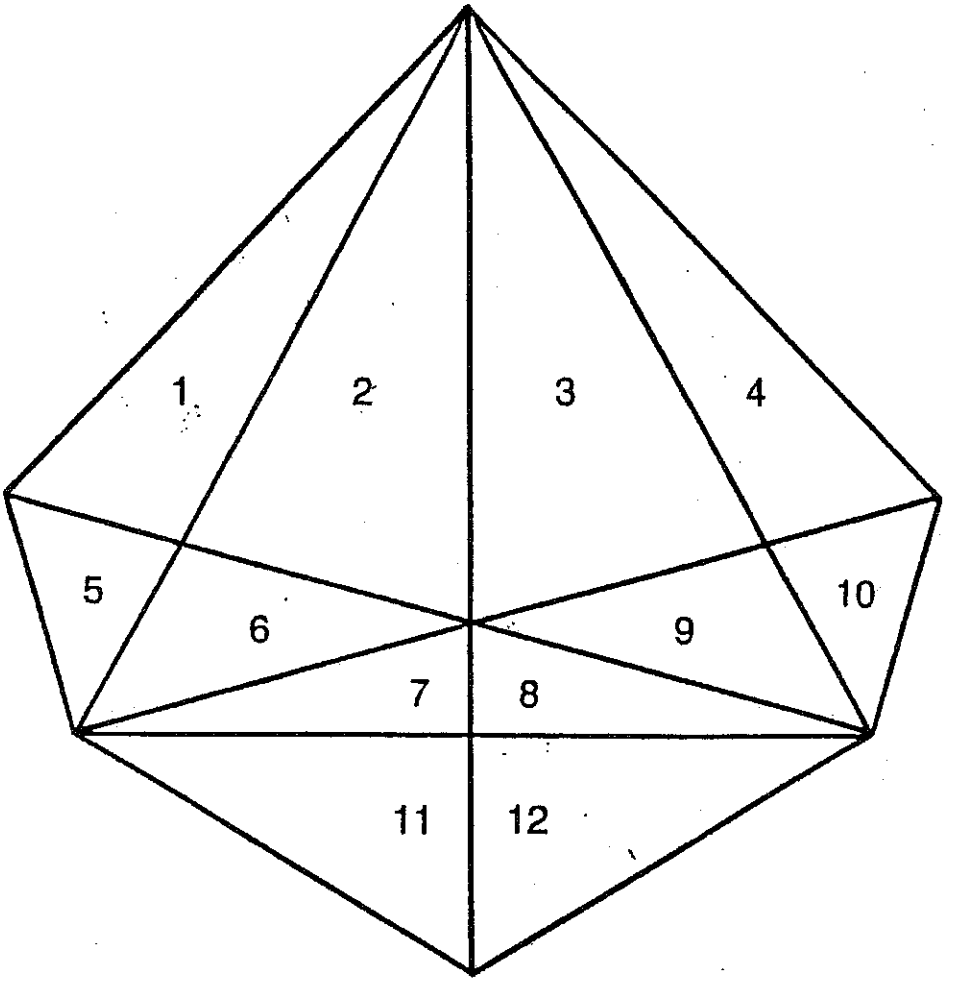
PFS

33-5

11/11/19

Problem:

How many triangles are there in this figure?



How can you organize your counting?

Are there any short cuts?