

Patterns In Our World

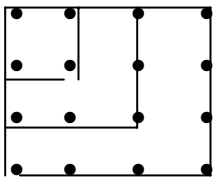
 Name _____

Patterns can be found all around you. Sketch the next two pictures for the patterns shown below, and then describe the pattern that helped you know what to sketch.

1. A pattern that often occurs in building is called a triangular pattern. Here's what this pattern looks like:

```
  9      9      9      9      9
    999    999    999    999
      9999  9999  9999
        99999 99999
          999999 999999
            99999999
```

2. Some Native American designs include square patterns that look like this



3. The number of petals on a pinecone or sections around a pineapple increase in a sequence known as a Fibonacci Sequence named for the mathematician who discovered it. If the sections were unwound and laid in rows, they would look like this:



4. A game where a ball moves through a maze to an end point can have several paths the ball could follow to get there. The number of paths can often be modeled by another famous sequence known as Pascal's Sequence named for the mathematician who discovered it.

```
      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
```

5. On the back of this paper, sketch a pattern of your own. Explain how you know what each step of the pattern will be.