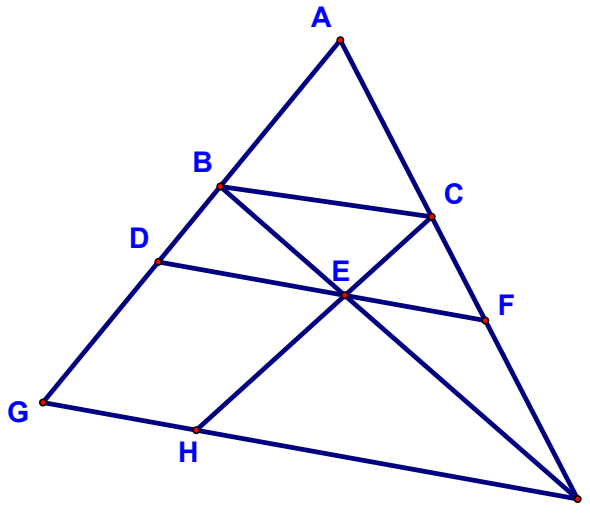




## Probability - Lesson 1-9

Here's the warmup...it's important for today's lesson!



**Name all the triangles in the diagram.**

Today, we'll learn about probability - we'll define it and then discuss how to find it:

**"The likelihood that an event will have a particular outcome."**

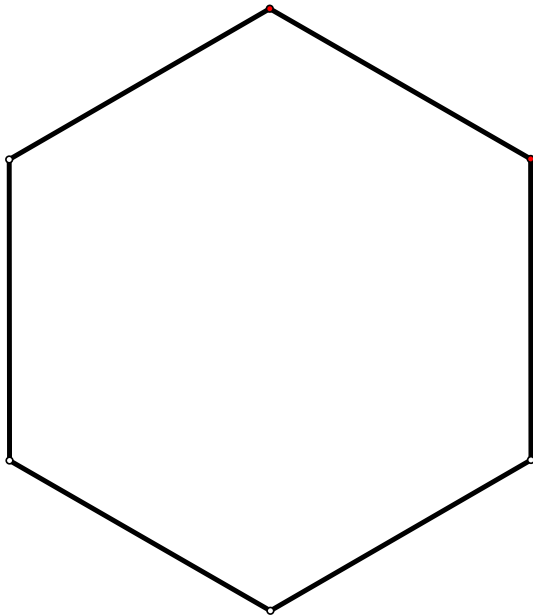
$$\text{Probability} = \frac{\text{\# of successful outcomes}}{\text{\# of possible outcomes}}$$

**Two steps to determine probability:**

- 1. Determine all possibilities in a logical manner...count them!**
- 2. Determine the number of possibilities that are "favorable."**

Here is an example in geometry – can you find this probability?

**What is the probability of randomly selecting one of the longer diagonals from among all the diagonals of a regular hexagon?**



And here's another example...see how you do!

Given  $\overline{AB}$  with midpoint  $M$ , what is the probability of randomly selecting a point on the segment closer to point  $A$  than to point  $M$ ?

