

EXPLORE/EXPLAIN

DEFINITION OF GEOMETRIC PROBABILITY = $\frac{\text{Area of desired region}}{\text{Area of total region}}$

I. Use this definition to find the probability of landing on each color (find as a percentage to the nearest tenth):

This is called _____ Probability.

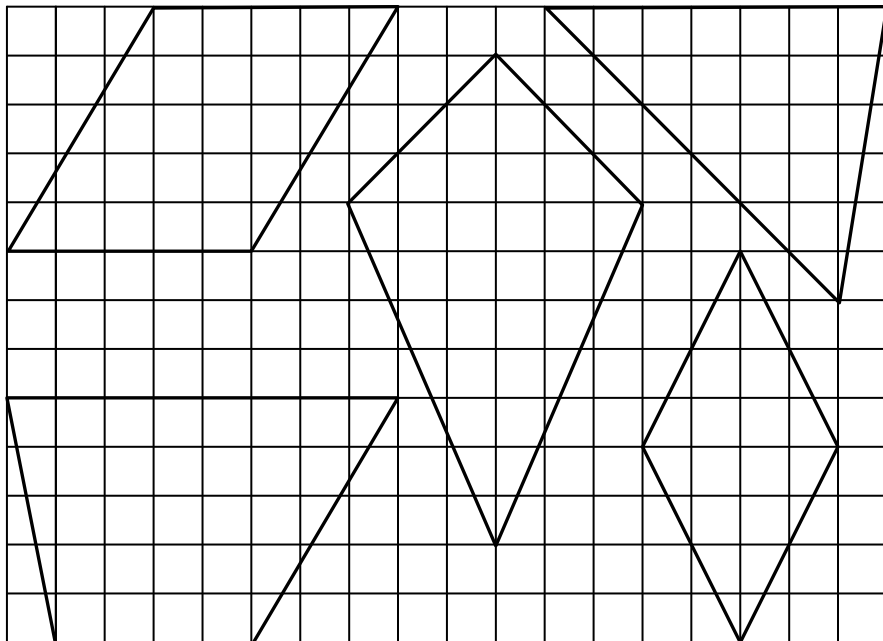
P(RED) =

P(GREEN) =

P(BLUE) =

P(YELLOW) =

P(WHITE) =



II. Comparing Theoretical and Experimental Probability

You just found the theoretical probability for this sample space. Fill in the values from above to the table below. Now we will do an experiment and see how often we actually land in the colored spaces. Calculate the experimental probability from the data (find as a percentage to the nearest tenth).

$$\text{Experimental Probability} = \frac{\text{How many times landed in desired color}}{\text{How many times dart thrown}}$$

	Theoretical Probability	Experimental Probability
Red		
Green		
Blue		
Yellow		
White		

- 1) Compare and contrast theoretical probability and experimental probability. What did you notice and why do think this occurred?