Fire! Exploration Questions

1. Run five experiments where you set the fire in the middle of the forest with each of the five probabilities listed and fill in the chart below:

Burn Probability	Percent Burned in Trial 1	Percent Burned in Trial 2	Percent Burned in Trial 3	Percent Burned in Trial 4	Percent Burned in Trial 5	Average Percent Burned
1/6=0.166667						
2/6=0.333333						
3/6 = 0.5						
4/6=0.666667						
5/6=0.833333						

2. Do you see any relation between the burn probability and the average percent burned? Provide a written explanation of this relationship.

3. Now, combine your data with the rest of the class. Use the entire class's data to find the average percent burned for each probability. Compare your individual average with the class average. Are they similar? Which average do you think is more representative of the general behavior? Why?

4. Graph the data. What does the graph look like? (Hint: the Average Percent Burned will be on the Y axis and the Probability will be on the X axis).

5. In any given probability were there two numbers representing the percent burned that were significantly different? Why do you think that happened?

6. Fill out another chart, but this time start the fire in a corner of the forest. Compare and contrast the average percent burned for each probability in this scenario with the average percent burned for each probability in the first scenario (where the fire was started in the middle of the forest). Explain why you think these data sets were similar or different.

Burn Probability	Percent Burned in Trial 1	Percent Burned in Trial 2	Percent Burned in Trial 3	Percent Burned in Trial 4	Percent Burned in Trial 5	Average Percent Burned
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