3.3 Lesson 2 Sample space diagrams with Grim dice

1)	A normal coin is flipped twice. What could happen? What is the chance of each outcome?
2)	What about if it were flipped three times?
3)	What if the coin were unfair and had $P(\text{Heads}) = 0.4$.
0)	What if the conf were unian and i (fields) — 0.1.
4)	Pick red and olive dice. Which dice was better? What could happen when you roll the dice?

5) Sometimes it is better to use a grid to show all the possible outcomes. How many Red wins? How many Olive wins? What is the probability of Olive winning?

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6) 7)	Repeat with Red and Blue dice Comparing methods Is it better to roll the dice many times or create a sample space diagram What advantages does a sample space diagram have? What disadvantages does it have?
8)	hints accuracy, no assumptions, fair dice, experimental, fun. Investigation Look at the yellow and magenta dice. Which do you think is better? Why? Prove it using a method of your choice.
9)	Investigation Look at the yellow and olive dice. Which do you think is better? Why? Prove it using the method you think is fastest
10)	Conclusion Draw a diagram showing which dice colours beat the others. Can you devise a strategy to beat 2 other players when rolling the dice?

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		Red die					On average which dice wins?	
								0.11 0.1100000
Olive die								
								What is the probability of that dice wimming?
	Olive die				ve die	I	On average which dice wins?	
	1							
lie								What is the probability of that dice
Blue die								wimming?
m								
		Red die						On average which dice wins?
	I							
die								What is the probability of that dice
Blue die								wimming?
Щ								

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	Magenta die						
	Magenta die				On average which dice wins?		
ν die					What is the probability of that dice		
Yellow die					wimming?		
		Vol	low die				
		161	low die		On average which dice wins?		
Olive die					What is the probability of that dice		
Oliv					wimming?		
		Mag	genta die		On arrange which dies wing?		
					On average which dice wins?		
0							
Red die					What is the probability of that dice wimming?		
-Re					willining:		

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