

L26Q1	I am thinking of a color in the set {blue, yellow, red, green}. How many Yes/No questions will it take to guess my color?	2		
L26Q2	How many items in a set can be distinguished by 20 Yes/No questions?	>million		
L26Q3	Which contains more information, the samurai cartoon or the samurai photo?	photo		
L26Q4	For which set is the unknown color most predictable?	blue 100%		
L26Q5	For each set, how many questions will it take, on average, to guess the color?			
	{blue, yellow, red, green}	2		
	{blue 50%, yellow 20%, red 15%, green 15%}	<2		
	{blue 100%}	0		
L26Q6	For which set is more information being transferred by the question game?	the first		
L26Q7	What is the entropy in a result of a single flip of a fair coin?	1		
L26Q8	What is the entropy of a number of "heads" in two coin flips?	1.5		
L26Q9				

<b>A</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$\sim \log_2 A$	0.0	1.0	1.6	2	2.3	2.6	2.8	3	3.2	3.3	3.5	3.6	3.7	3.8	3.9	4

L26Q10	What is the log base 2 of 24/105?	-2.1		
L26Q11	What is the probability that a student selected from this group is an IE?	1/8		
L26Q12	What is the entropy of any student's department taken from this set?	1.75 bits		
L26Q13	What is the probability that a student selected from this group is an IE?	1/9		
L26Q14	What is the entropy of any student's department taken from this set?	2.06	bits	
L26Q15	What would have been the entropy if all 5 categories were equally represented by the course's student body?	2.32	bits	
L26Q16	What is the entropy of the sum of two dice?	3.27	bits	
L26Q17	Compare this to the entropy of one out of eleven equally-likely outcomes. Without doing any calculations, which value should be larger?	3.46	bits	
	11 equi-probable events are tougher to "guess" than when some of the frequency of occurrence/ probability of events are biased towards one or more outcomes.			