

**Wildcards:** help us to match partial strings.

**\***(Asterisk): matches zero or more characters.

**?**(Question mark): matches exact **ONE** character.

**=RAND()**: to generate a random number between 0 to 1

	B	C	D	E	F	G	H	I	J	K	L
6		Price	Chance								
7		Coffee: \$3.70	80%								
8		Muffin: \$2.50	50%								
9		Sandwich: \$4.89	20%								
10											
11			Buys Coffee?		Buys a Muffin?		Sand?		Total		
12		=RAND()	=IF(C13<=0.8,1,0)	=RAND()	=IF(E13<=0.5,1,0)	=RAND()	=IF(G13<=0.2,1,0)		=C\$7*\$D13+C\$8*\$F13+C\$9*\$H13		
13	C1:	0.397173	1	0.595035	0	0.627848		0	\$3.70		Total: \$45.68
14	C2:	0.707874	1	0.738817	0	0.149714		1	\$8.59		
15	C3:	0.84101	0	0.35246	1	0.428406		0	\$2.50		
16	C4:	0.460001	1	0.615416	0	0.765832		0	\$3.70		
17	C5:	0.055287	1	0.099858	1	0.662479		0	\$6.20		
18	C6:	0.920801	0	0.088067	1	0.097705		1	\$7.39		
19	C7:	0.688565	1	0.686424	0	0.458501		0	\$3.70		
20	C8:	0.474481	1	0.425884	1	0.527208		0	\$6.20		
21	C9:	0.519811	1	0.871285	0	0.897377		0	\$3.70		
22	C10:	0.919251	0	0.737726	0	0.597035		0	\$0.00		

If the random number is smaller than chance (80%), consider coffee to be bought, otherwise, no.

6	Country #1:	Algeria	Region:	Europe
7	Country #2:	United States		
8				
9				
10	Q1: Which country's name appears earlier in the alphabet?			
11	Answer:	Algeria	=IF(C6<C7,C6,C7)	

If the first country is before the second, show the name of the first one, otherwise show the second one.

Q2: Which country has the larger population in 2010?				
Answer:	United States	=IF(F14>F15,C6,C7)	Country1 population	35468208 =VLOOKUP(C6,'Data by country'!A:Z,10,FALSE)
			Country2 population	309349689 =VLOOKUP(C7,'Data by country'!A:Z,10,FALSE)

Second Step, comparison.  
If the population of the first country is larger, show the name of the first one, otherwise, show the second one.

First step, find out the population of the two countries. Notices that we use 'xxx!' when referring data in a different page named xxx. Data for population is in column J, which is the 10<sup>th</sup> column in the array, so column\_num is 10.