

EQ:

❖ Terms to Know:

- Simulation --- model that imitates _____ of some _____

SIMULATION MODELS:

- *flip a* _____: two _____; equal _____ of occurring
- *random* _____ *from a table*: probability of outcomes _____ of _____% --- use _____

other probability _____ --- use digits _____ *** Why not 001 to 100?

- Trial or Repetition --- _____
- Independence --- the _____ of one event _____ the outcome of another event;

➤ DO NOT SAY: " _____ "

❖ OUTLINE FOR A SIMULATION:

Step 1: _____

Step 2: _____

*State _____ here!!

Step 3: _____

*State _____ *Define _____

*Define _____ *Define a _____

Step 4: Conduct a _____

- _____
- _____
- _____
- _____

State Problem:

Assumptions:

Model:

LINE #

129	36759	58984	68288	22913	18638	54303	00795	08727
130	69051	64817	87174	09517	84534	06489	87201	97245
131	05007	16632	81194	14873	04197	85576	45195	96565
132	68732	55259	84292	08796	43165	93739	31685	97150
133	45740	41807	65561	33302	07051	93623	18132	09547
134	27816	78416	18329	21337	35213	37741	04312	68508
135	66925	55658	39100	78458	11206	19876	87151	31260

Simulation Results:

	<u>"yes"</u>	<u>"no"</u>
TRIAL 1 _____		
TRIAL 2 _____		
TRIAL 3 _____		
TRIAL 4 _____		
TRIAL 5 _____		

Conclusion:

❖ Ex. 2 Is This Discrimination? p. 399 Set up and run a simulation.

State Problem:

Assumptions:

Model:

105	95592	94007	69971	91481	60779	53791	17297	59335
106	68417	35013	15529	72765	85089	57067	50211	47487
107	82739	57890	20807	47511	81676	55300	94383	14893
108	60940	72024	17868	24943	61790	90656	87964	18883
109	36009	19365	15412	39638	85453	46816	83485	41979
110	38448	48789	18338	24697	39364	42006	76688	08708

Simulation Results:

Random Digits		≥ 55	< 55	Random Digits		≥ 55	< 55
T1	_____			T6	_____		
T2	_____			T7	_____		
T3	_____			T8	_____		
T4	_____			T9	_____		
T5	_____			T10	_____		

Number of Salespeople 55 or Older	Frequency of Trials with this Outcome
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

- Conclusion:

Based on **our simulation**, in a randomly selected group of 10 sales people, the probability that at least 6 of them are 55 years old or older is _____.

(Now answer the question asked in the problem!)

- Assignment: Outline and Conduct a Simulation for Each
 - p. 398 **#4** (Line 125) Run 5 trials; 0 to 6 → shot made 7 to 9 → shot missed
 - p. 402 **#7** (Line 116) Run 10 trials; 0 to 4 → girl 5 to 9 → boy
 - #8** (Line 132) Run 10 trials; 0 to 5 → AL wins 6 to 9 → NL wins
 - #10** (Line 107) Run 10 trials; 0 to 4 → girl 5 to 9 → boy