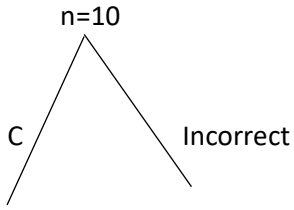
Section 6 Practice Problems

Prob. 5-a

You need to draw a triangle and put 10 questions on the top and at the bottom put $p = 1/5 = .20$ chance of answering correctly and **0.80** chance of answering incorrectly.

In order to pass, she can answer 7 or 8 or 9 or 10 correctly, we find the probability of each and then add them up (**to do that we, use TI calculator)**



$p = 1/5 = .20$ 0.80

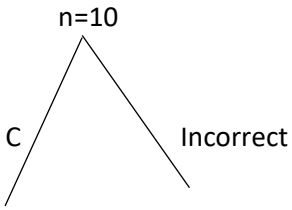
So,

x	$P(x)$	$x \bullet P(x)$
0		
1		
2		
3		
4		
5		
6		
7	**0.00079**	
8	**0.000074**	
9	**0.000006**	
10	**0.0000001**	
	Answer ≈ 0.0007	

Prob. 5-b

You need to draw a triangle and put 10 questions on the top and at the bottom put $p = .75$ chance of answering correctly and **0.25** chance of answering incorrectly.

In order to pass, she can answer **7 or 8 or 9 or 10** correctly, we find the probability of each and then add them up (**to do that we, use TI calculator**)



$p = .75$ 0.25

So,

x	$P(x)$	$x \bullet P(x)$
0		
1		
2		
3		
4		
5		
6		
7	**0.25028**	
8	**0.28157**	
9	**0.18771**	
10	**0.05631**	
	Answer $\approx 0.77587 = 77.6\%$	

Prob. 5-c

The mean or expected number of correct guesses for Colin is $\mu = n \bullet p = 10 \bullet 0.2 = 2$

Prob. 5-d

The mean or expected number of correct guesses for Diana is $\mu = n \bullet p = 10 \bullet 0.75 = 7.5$