

# Warm-Up

Grab a calculator!!

[ritsickd.weebly.com](http://ritsickd.weebly.com)

If two dice are thrown, what is the probability of getting a sum of 6? 10? 11? 12?

## Outcomes for Two Dice

	1	2	3	4	5	6
1	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)
2	(2, 1)	(2, 2)	(2, 3)	(2, 4)	(2, 5)	(2, 6)
3	(3, 1)	(3, 2)	(3, 3)	(3, 4)	(3, 5)	(3, 6)
4	(4, 1)	(4, 2)	(4, 3)	(4, 4)	(4, 5)	(4, 6)
5	(5, 1)	(5, 2)	(5, 3)	(5, 4)	(5, 5)	(5, 6)
6	(6, 1)	(6, 2)	(6, 3)	(6, 4)	(6, 5)	(6, 6)

Thursday 2/9/17

# 1.8 Binomial Probability Distribution

PDF - Probability Density Function

Calculator:

2nd Vars → Press Up 6 times → binompdf

CDF - Cumulative Distribution  
Function

Calculator:

2nd Vars → Press Up 5 times → binomcdf



**Ex 1:** Juan's batting average is .260. If he's at bat four times, what is the probability that he gets exactly two hits?

Key word(s): *exactly* → PDF

Trials (n) : 4

p: .260

x: 2

.222

$$\frac{2}{4} = .5$$

Ex 2: In a school survey 68% of the students have an Android device. 20 people responded to the survey.

a) What is the probability that exactly 12 students have Android devices?

PDF

Trials: 20  
p: .68  
x: 12

.135

$1.00 - .68 =$

b) What is the probability that exactly 8 students use a different device (most likely iPhone)?

Trials: 20  
p: .32  
x: 8

.135

Ex. 3: In previous years, 85% of students passed AFM. What is the probability that out of 32 students, 26 or less pass?


Key word(s): or less



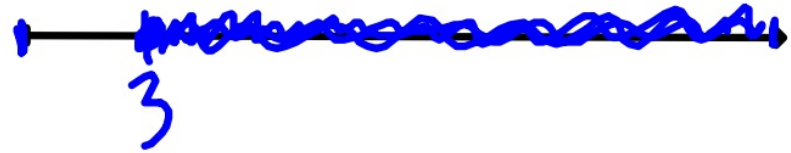
Trials: 32  
P: .85  
X: 26

.346



Ex. 4: What is the probability that from our previous sample of 32 a minimum of 3 students fail? 

Key words: minimum



Trials: 32  
P: .85  
X: 3

$1 - \text{binomcdf} =$   
when you have the  
lowest number.