Ch 4.4 Mean, Standard deviation, and Variances of binomial distributions.

If I told you that 2% of your class failed the quiz yesterday, how many people would you think failed?

(mean) $\mu = n \cdot p$

*p = the probability

(variance) $\sigma^2 = n \cdot p \cdot q$

(standard deviation) $\sigma = \sqrt{n \cdot p \cdot q}$

Apr 29-8:33 AM

Ex1a) If there are 14 couples wanting girls, what would the mean, variance, and standard deviation be.

n = ____, p = ____, and q = ____

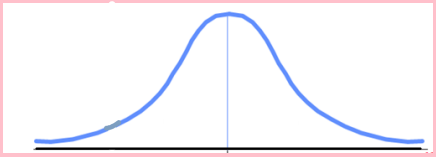
mean = μ

variance = σ^2

standard deviation = σ

Apr 29-8:37 AM

Ex1b) A drug company claims that they can increase your chances of selecting the sex of your child. If you surveyed 100 couples who wanted to have girls and 68 of them got girls, do you think the companies claim is accurate?



Apr 29-8:41 AM

Ex1c) Roll a die 60 times to see how many 1's you get. Find the mean, variance, and standard deviation.

n = ____, p = ____, and q = ____

What would be the normal amount of 1's you'd roll?

If you were playing a game with this die, would you think it would be suspicious for someone to get 25 1's?

Apr 29-8:46 AM

Ex1d) The probability that a tennis set will go into a tiebreaker is 15%. In 20 randomly selected tennis sets, what is the mean, variance, and standard deviation of the number of tiebreakers?

n = ____, p = ____, and q = ____

Would it be unusual if you had a match with no tie breakers?

Dec 2-3:25 PM

try #1

Grade: «grade»
Subject: «subject»
Date: «date»

Apr 29-10:54 AM

Try #1. Tis the season for shopping, if 17% of returns are for credit out of 1000 returns, find the following:

round answers to the nearest tenth.

1.Find the mean

2. variance

3. standard deviation.

4. Would it be unusual for a store owner to have 200 returns for credit?

Apr 29-8:50 AM

1 mean

Apr 29-10:53 AM

2 variance

Apr 29-10:53 AM

3 standard deviation round to the nearest tenth

Apr 29-10:53 AM

4 Would it be unusual for 200 returns?

Yes

No

Dec 3-8:29 AM

How many of you are left handed?

Ex2) The probability of an individual being left handed is 0.1. Let's determine if your class has a normal amount of left handed individuals?

How could we use the statistics on left handed individuals outside of class?

Dec 3-8:33 AM

How many of you have heard of Jay Leno?

Ex2b) You work for an advertising company and are looking at using Jay Leno to be the spokes person for the product, however, some of the employees think Jay Leno wouldn't be a recognizable name to the younger audience. A survey off all ages was done and 83% of those surveyed recognized the name Jay Leno. Let's use your class and determine if Jay would be a good spokes person?

Apr 29-10:54 AM

snickers

Grade: «grade»
Subject: «subject»
Date: «date»

Dec 3-8:59 AM

Try #2

Adam is charge of packaging at the Snickers Corporation and is having his yearly evaluation. According to past surveys, 90% of Snicker candy bars weigh 48 grams. Suppose we select 400 candy bars from Adam's production line and weigh them and find that 375 candy bars weigh 48 grams? ***Should Adam get a promotion***?

clicker yes or no?

Apr 29-10:56 AM

1 Does he get his promotion?

Yes

No

Dec 3-8:59 AM