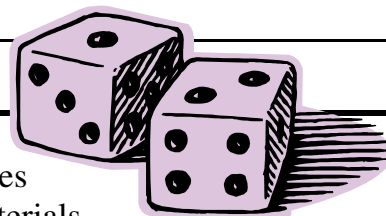Name _____ Pd _____

The Lazy Student

Imagine that your AP Stats teacher keeps making you do these activities
where instead of of doing nice, safe problems in the book, you use materials
such as dice. It's horrible! These activities make you face reality time and time again.

Today, you're assigned to roll a fair die 20 times and add the numbers you get. When you're done, the class will calculate the expected value and the standard deviation of all the sums.

If you're **diligent**, you buckle down and do exactly what is asked. But if you're **lazy**, you decide on a shortcut: you'll roll the die five times, add the numbers, and then multiply the total by four. That ought to give you about the same data as 20 rolls, shouldn't it?

Perhaps the answers aren't the same. However, your teacher says that if your solutions are *close enough*, you'll be fine. Your approach will be close enough…right? (At the very least, it's a lot less work.)

Time to find out!

1. Your teacher will let you know if you're a diligent or a lazy student. After you're told your work
ethic, perform the experiment as explained above. Show any work you have here…

Total of your 20 rolls = _____   (Be prepared to share this number with the class.)

2. Switch your work ethic and perform the experiment from the other perspective. Again, show any work
you have here…

Total of your 20 rolls = _____   (Be prepared to share this number with the class.)

3. What's the moral(s) of the story?