As summer approaches, we would like to inform you of the supplies you will be expected to have daily in your Statistical Reasoning class:

- Loose leaf Paper
- Pencils with erasers
- 1.5”-2” Binder with Dividers (6 units)
- 1” Binder for each semester for textbook

Calculators: **TI-84 Plus or TI-84 Plus Silver**
graphing calculator (see picture at right)

**Price & where to find the TI-84:**
Can be found at Staples, Office Dept, Amazon.com
TI-84 Plus price: $109–$120  
TI-84 Plus Silver price: $130

While we realize that the cost of the graphing calculator is an expensive item on the supply list, know that this calculator will serve the student’s needs through both high school AND college. District policy states a graphing calculator is required for Statistical Reasoning. If this purchase would cause an undo financial burden, please contact your child’s teacher at the beginning of the school year.

**About the Course:**
This course will give students experiences with statistics beyond the CCGPS sequence of courses, offering students opportunities to strengthen their understanding of the statistical method of inquiry and statistical simulations. Students will formulate statistical questions to be answered using data, will design and implement a plan to collect the appropriate data, will select appropriate graphical and numerical methods for data analysis, and will interpret their results to make connections with the initial question.

**What You Can Expect:**
- Direct teaching (teacher-led notes) with 1-4 examples for each type of problem.
- Student learning tasks (group & individual tasks that will challenge you and make you think about how math can be used in real-world situations).
- Daily homework. This is a rigorous course and requires students to complete homework.
- Formative assessments that will provide feedback on what you need to work on before the summative assessment.
- Summative assessments that cover all of the material in the unit.
- Learning will start on the first day of school.

**Ways to Succeed in this Class:**
- A positive attitude.
- Come to class EVERY DAY!
- Take notes everyday and keep them organized by date in your binder. (See your teacher if you need assistance getting organized.)
- Fully complete homework every day and putting forth your best effort.
- Read all of your notes and/or homework from the current unit every day. In other words, study every day and not just the night before the assessment. Ask for clarification, as needed, well in advance of the test.
- Get help when you are confused by asking questions during class and/or attending help sessions.
- Always show work in order to support your answers
**Topics You Can Study Over the Summer:**

These topics/problems are **optional**. However, completing them the week before the start of school will result in a smoother transition into this course. **Show all of your work.**

**Use the following problem and box plot to answer questions #1 – 4.**

Incoming freshmen at a community college can take a placement test to determine if they are eligible for a college Calculus class. A student needs to score 50 or more points to enroll in Calculus I. Students scoring less than 50 points must enroll in a Pre-Calculus course first. The box plots show the data collected from the scores of 24 females and 24 males who took a recent placement test.

![Box Plot](image)

**Number of Points**

Females

Males

1. What measure of center does the box plot allow you to see? What measure of spread does the box plot allow you to see?

2. Estimate the median score for females and the median score for males.

3. Give the 5 number summary for the females. Do you think there are any outliers for the females? Show work to prove.

4. Give the 5 number summary for the males. Do you think there are any outliers for the males? Show work to prove.

5. Assume that the following events are independent:
   - The probability that a high school senior will go to college is 0.72.
   - The probability that a high school senior will go to college and live on campus is 0.46.

What is the probability that a high school senior will live on campus, given that the person will go to college?

6. In a survey about a change in public policy, 100 people were asked if they favor the change, oppose the change, or have no opinion about the change. Of the 100 people surveyed, 50 are male and 37 oppose the change. Of the 37 who oppose the change, 25 are female. What is the probability that a randomly selected respondent to the survey is a man or opposes the change in policy? Express your answer as a percent.

7. The probability that a shopper will buy a certain product is about 65%. If 5 shoppers come into a store, what is the probability that 2 of them will buy the product?

8. The probability that a student will get an A in this course is about 72%. In a class of 32 students, how many students would you expect to get an A and what is the standard deviation?