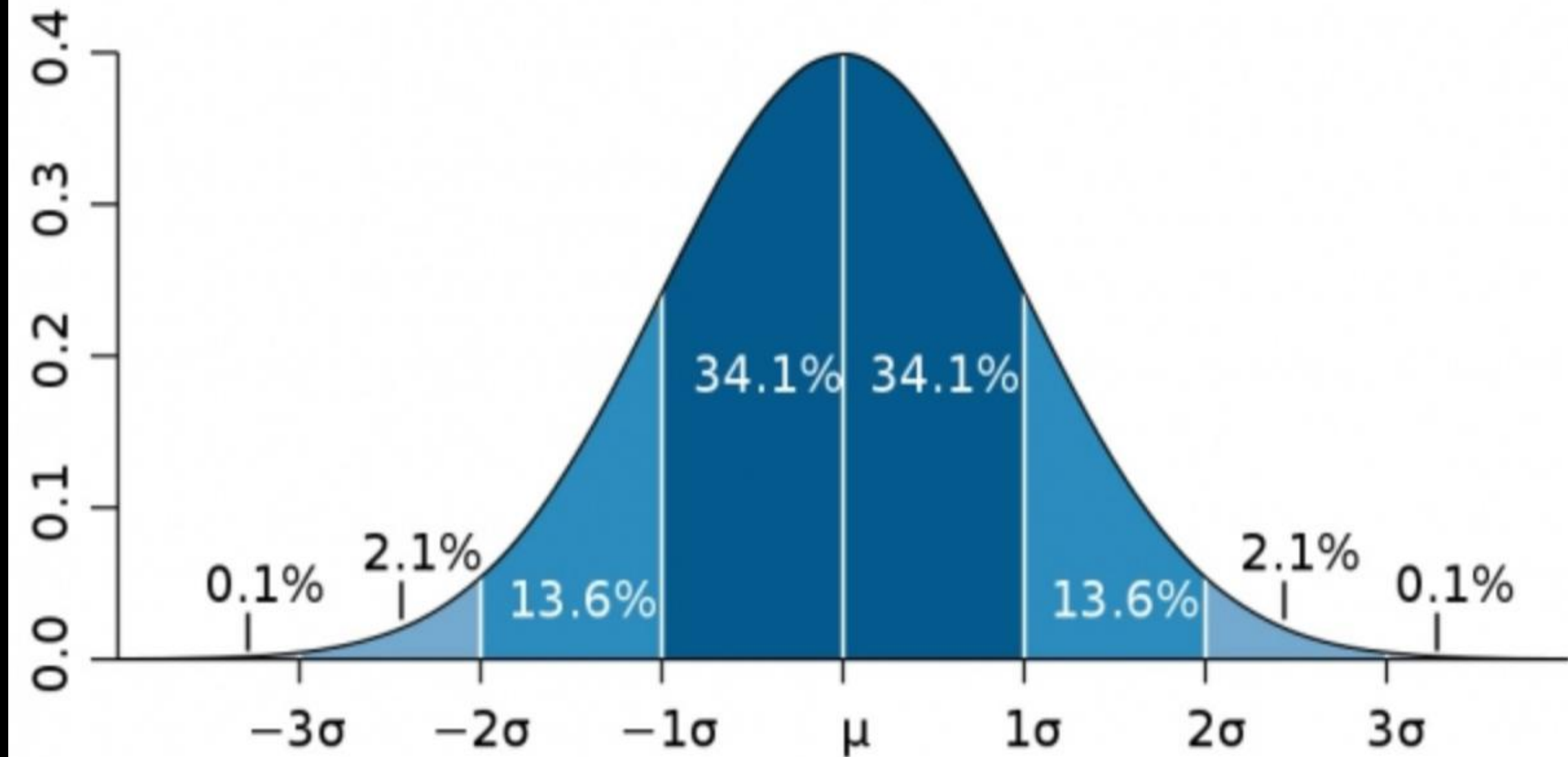# Welcome to AP Stats!

Mr. Lowber

Manual High School

Do you know the Gaussian curve?

Consider a little history of a clever young 10 year-old.

What Is Statistics?

Statistics is the study of ***data***. It is a branch of mathematics that deals with how to gather, organize, and interpret data.

The two major branches of statistics are:
1) Descriptive statistics
2) Inferential statistics

What Is Statistics?

We will study four major themes this year:

- Collecting Data - Surveys, Studies, and Experiments

- Describing Data - Graphical and Numerical Analysis

- Probability - The Study of Chance Behavior

- Inference - Making Conclusions Based on Data

What do you Need?

- You will need the following items for this course:

  - Graphing Calculator - Required (*TI-84/84+ recommended*)

  - Notebook - 2 or 3 subject, college-ruled

  - Binder - 1.5" for tables, handouts, notes, etc.

  - Pencil, pen, highlighter

  - Strong work ethic and a willingness to ask for help!

The AP Exam 2026

- We will prepare for the AP Statistics Exam taking place on Thursday, May 7th, 2026 @ 12:00 pm.

- 3 hours – Part 1: 40 Multiple Choice Questions,

    Part 2: 5 Free-Response Questions, and
    1 "Investigative Task" (simply a longer FRQ)

- You CAN be successful on this exam **IF** you put forth the effort ALL YEAR LONG.

    - I will provide you with LOTS of preparation materials, as well as practice for the exam.

    - **You will need to provide the effort…**

Passage Rates

2019 Score Distributions: Math & Computer Science

Exam	5	4	3	2	1
AP Calculus AB	18.9%	18.8%	20.6%	23.4%	18.3%
AP Calculus BC	43.2%	18.5%	19.8%	13.6%	4.9%
AP Computer Science A	27%	22.1%	20.8%	11.8%	18.3%
AP Computer Science Principles	13.6%	21.1%	38%	19%	8.3%
AP Statistics	14.5%	18%	26.7%	19.7%	21.1%
AP Statistics (2018)	14.1%	21.3%	25.2%	16.1%	23.3%
Students form Mr. L's Stats Classes (2017-2020 Years)	**13.3%**	**27.4%**	**37.7%**	**14.1%**	**7.5%**

Pop. mean
$$\mu = 2.78$$

2017
$$\bar{x} = 3.16$$

2018
$$\bar{x} = 3.20$$

2019
$$\bar{x} = 3.35$$

2020
$$\bar{x} = 3.37$$

AP Exam Results 2023 & 2024

AP Score Reports for K-12 Educators

👤 STUDENTS TAKING EXAM

YOUR GROUP	SCHOOL	KY	GLOBAL
72	73	1,979	243,925

📊 MEAN SCORE

YOUR GROUP	SCHOOL	KY	GLOBAL
3.88	3.84	2.72	2.88

✔ % SCORES 3 OR HIGHER

YOUR GROUP	SCHOOL	KY	GLOBAL
91.7%	90.4%	55.8%	60.0%

Subject Score Roster - 2023 Customize

| DuPont Manual High School (181525) |
| Statistics |

AP Stats Results for 2025

AP®

AP Score Reports for K-12 Educators

👤 STUDENTS TAKING EXAM

YOUR GROUP	SCHOOL	KY	GLOBAL
51	51	1,974	266,506

📊 MEAN SCORE

YOUR GROUP	SCHOOL	KY	GLOBAL
4.18	4.18	2.69	2.92

✓ % SCORES 3 OR HIGHER

YOUR GROUP	SCHOOL	KY	GLOBAL
96.1%	96.1%	55.4%	60.3%

Score Distributions with Comparables

Comparable groups	Total Students	Score 1	Score 2	Score 3	Score 4	Score 5	Mean score
⊖ Your group (All Selected Sections)	51	0% (0)	4% (2)	20% (10)	31% (16)	45% (23)	4.18

What should you already know?

Algebra 2 Topics:

❖ **P**   **Permutations**

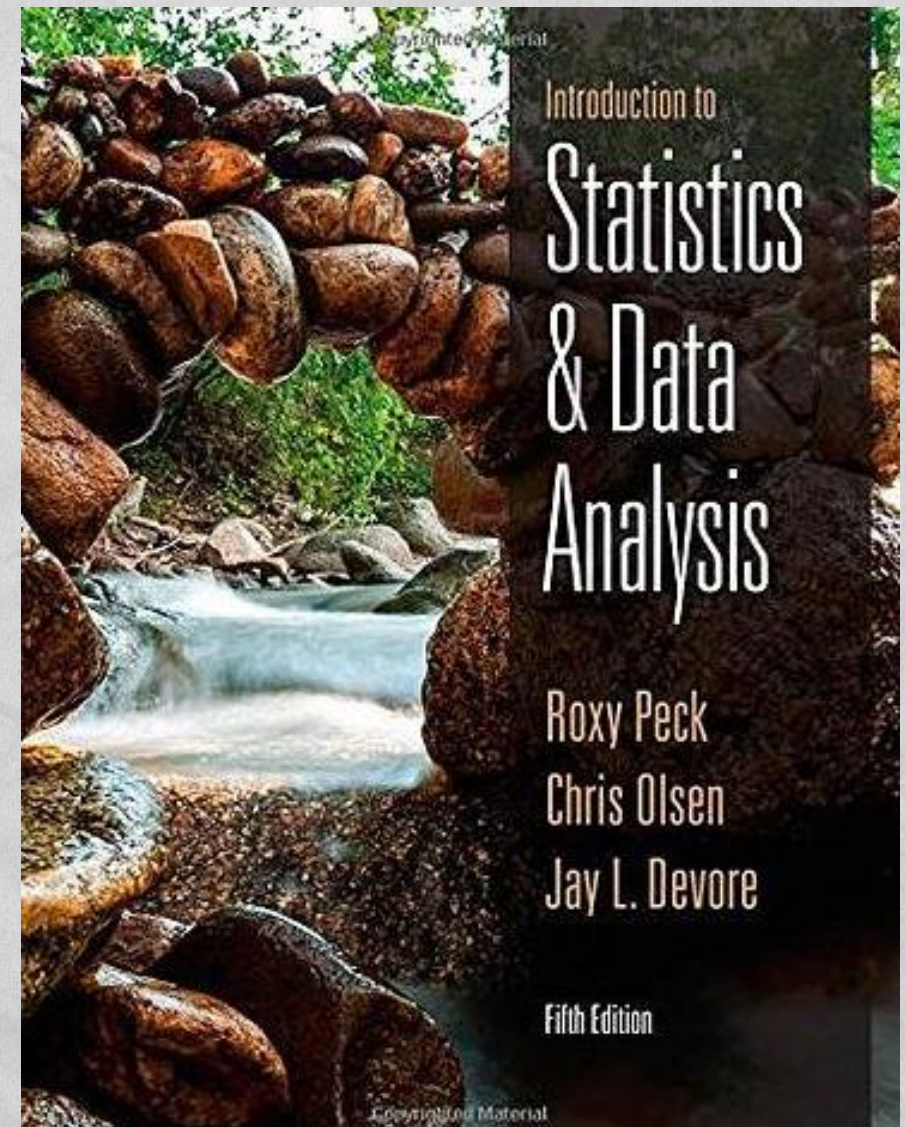❖ **C**   **Combinations**

❖ **Pr**   **Probability** $\rightarrow P(A|B)$

❖ **B.T.**   **Binomial Theorem**

used to quickly solve $\rightarrow (x-3)^5$

Your Textbook

Statistics & Data Analysis, 5th Ed. by Peck, Olsen, & Devore

- Read It

- Study It

- Use It

- Take Care of It - Cover It!

- Bring it every day…

CLASSROOM RULES

- **BE ON TIME**

- **BE PREPARED**

- **NO FOOD or DRINKS***
  (*Exception: Water bottles w/ cap)

- **BE RESPECTFUL OTHERS AND THEIR PROPERTY**

- **BE POSITIVE AND DO YOUR BEST**

Syllabus-Expectations

- My goal is for you to understand Statistics and how it plays a role in your current and future life.

- My hope is you will be successful in the course and earn a passing score on the AP Exam.

- My expectation is that you will put forth the effort necessary to be successful in a college-level course.

Your Index Card

(Blank Side)
Name
Grade level
Magnet
Book #___

(Lined Side)
(1) Give an interesting fact about you.
(2) What is your main goal for this class?

- We'll assign textbooks next class

- Please fill out your index card with the following information.

Finish your summer reading and assignments?

❑ Please turn in your answers to the questions for the Checklist (Name & block)

❑ Ready for a **QUIZ**? What is your understanding of Chapters 1 & 2?

❑ HW #1B: Article on Dyscalculia (HW questions linked on My webpage)

❑ **Quiz time! Next Wed. on concepts & vocabulary from Chapters 1 & 2!**

Course Website

Mr. Lowber's Class Website (1st resource):

- http://chrislowber1.wixsite.com/dumath

- Notes, Handouts, etc.

- Resources, Applets, Links

HW #1B: Read Article & Answer questions

Counting on Dyscalculia

By John Allen Paulos| Tuesday, March 01, 199x taken from DISCOVER Magazine

Health statistics may be hazardous to our mental health. Inundated by numbers purporting to predict everything from our likelihood of dying from cancer to our chances of contracting AIDS, we respond with
alleged risk. We ignore
accept dubious conclus
misinterpret the numb
88.47 percent of us hav
452,888,988,750 cases

Part of the problem lies
hazards with anything
mathematical; it stems
third is factual: if we do
possibly know what the

AP Stats 2017-18

Name: _____   Block:_____

HW #1: Questions on *Counting on Dyscalculia*

By John Allen Paulos, taken from DISCOVER Magazine in March, 199x

Please answer the following questions:

1) What are the three common causes of the problem for misinterpreting statistics that are cited by the author?

2) The author states that we have a preference for remembering statistics that are nice round numbers, typically ones that are multiples of what?

3) What aspect is most critical about a random sample?

4) Are these two phrases the same (meaning are they equally likely): (1) probability that

Due on **Next class**

Course Website

http://chrislowber1.wixsite.com/dumath

Points of Interest

➢ Monthly Calendar

➢ Notes, handouts, links

➢ AP EXAM Prep

➢ Resources

Who needs statistics?

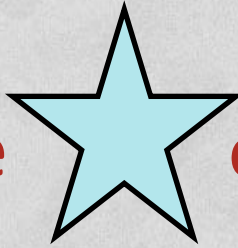*Listen to a current mathematics professor*

Homework

- Explore the website

- Read the article & answer questions; Review Chapters 1 & 2
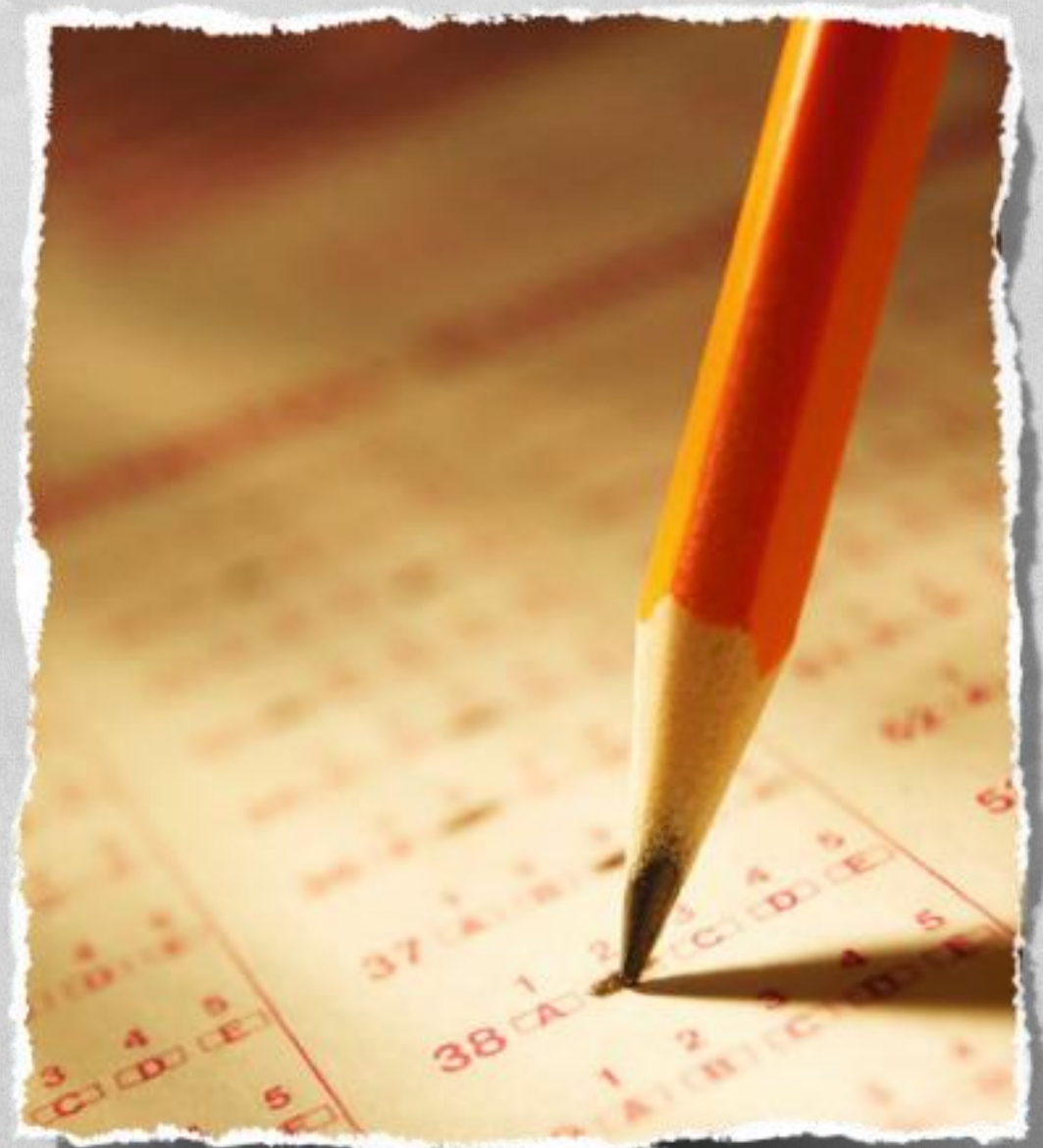
- See you next class ☺!

Next Class: Birthday STARS

On the front of the card (the side with the ⭐ on it):

- Write your First & Last name

- Write your birthday

- Decorate your cards

Let's Talk Stats...

- A claim has been made that mid-sized cars with airbags lower hospitalization rates for drivers in accidents.

- How could we test this claim?

  - How would you gather, analyze, and use data to study this?

Let´s Talk Stats...

1.) How did deaths per year from natural disasters change in the last century?

2.) Worldwide, women aged 30 spent about how many (total) years in school?
(Note: Men of the same age spent 8 years)
3.) **In the last 20 years, the percent of people living in extreme poverty has...**