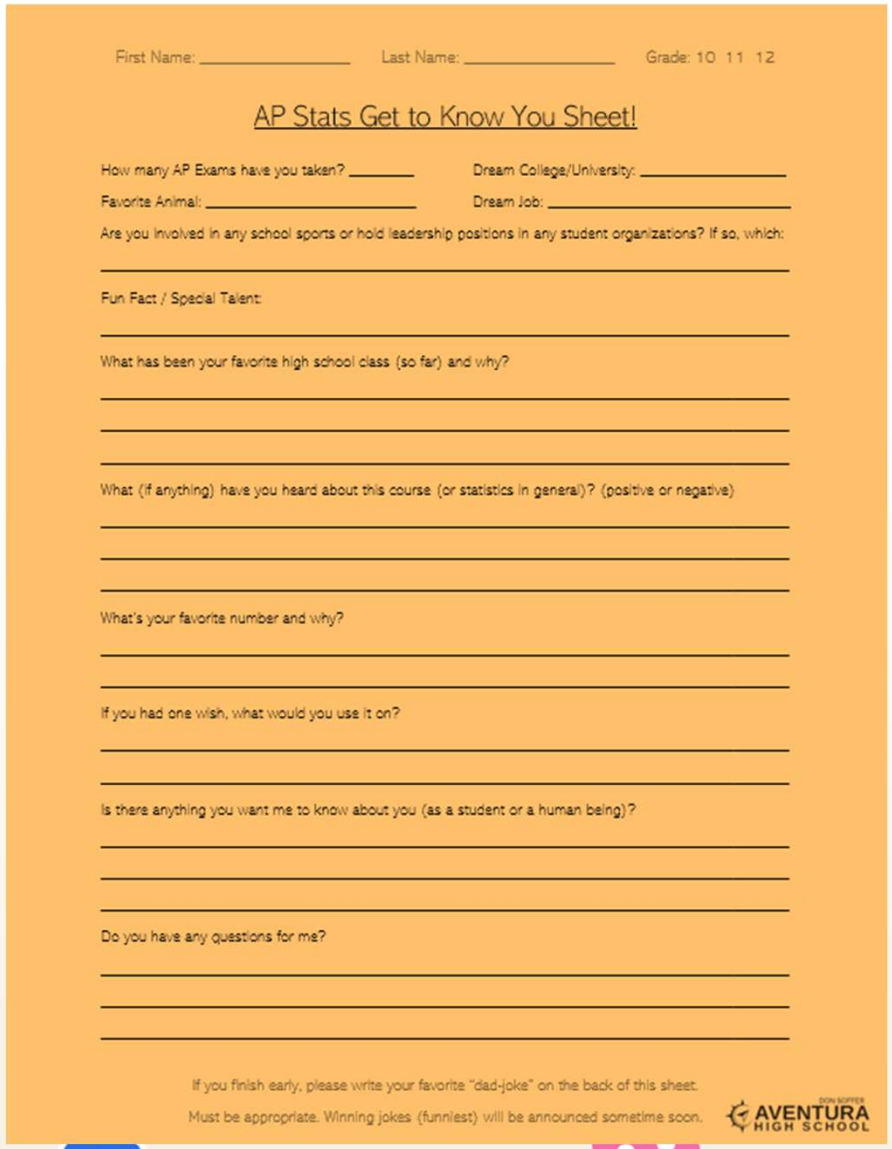
WELCOME BACK TO:

AP STATISTICS

Don Soffer Aventura High School

Mr. Levy

Get to Know You (Pass up Syllabus)



First Name: _____ Last Name: _____ Grade: 10 11 12

AP Stats Get to Know You Sheet!

How many AP Exams have you taken? _____ Dream College/University: _____

Favorite Animal: _____ Dream Job: _____

Are you involved in any school sports or hold leadership positions in any student organizations? If so, which:

_____

Fun Fact / Special Talent:

_____

What has been your favorite high school class (so far) and why?

_____

_____

_____

What (if anything) have you heard about this course (or statistics in general)? (positive or negative)

_____

_____

_____

What's your favorite number and why?

_____

_____

If you had one wish, what would you use it on?

_____

_____

Is there anything you want me to know about you (as a student or a human being)?

_____

_____

_____

Do you have any questions for me?

_____

_____

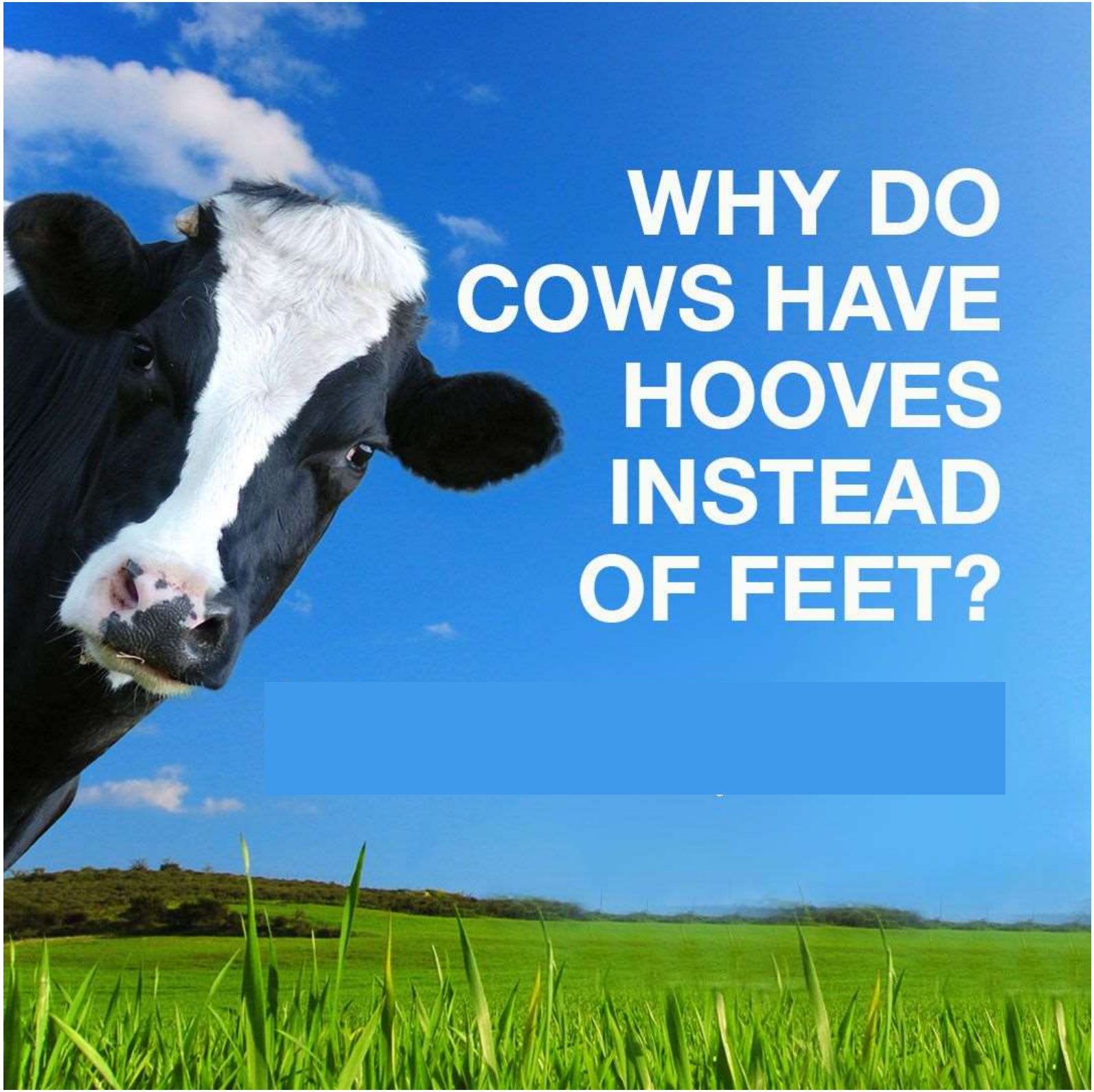
_____

If you finish early, please write your favorite "dad-joke" on the back of this sheet.

Must be appropriate. Winning jokes (funniest) will be announced sometime soon.

DON SOFFER AVENTURA HIGH SCHOOL

- Pickleball!
- UF / FSU
- Comparisons to Honors
- Easy and Hard?
- Office Hours
- Doubling up on math
- Calculator
- Pop Quizzes?
- Part time job!
- Being rich!


WHY DO
COWS HAVE
HOOVES
INSTEAD
OF FEET?

1. Order of Operations & Fractions

a) $\frac{25-4^2}{6}+3.5$

$4^2 = 16$

$25 - 16 = 9$

$9 \div 6 = 1.5$

1.5 + 3.5 = 5

b) $\frac{(12-15)^2}{15}$

$12 - 15 = -3$

$(-3)^2 = 9$

9 ÷ 15 = 0.6

c) $\frac{(18-24)^2}{24}+\frac{(22-16)^2}{16}$

$(18 - 24)^2 = (-6)^2 = 36$, then $36 \div 24 = 1.5$

$(22 - 16)^2 = 6^2 = 36$, then $36 \div 16 = 2.25$

1.5 + 2.25 = 3.75

2. Comparing Numbers in Different Forms

a) 0.38, 3/8, 37%, 0.4, 5/12

Turn everything into a decimal first.

3/8 = 0.375 37% = 0.37 5/12 = 0.4167

Now compare: 0.37 < 0.375 < 0.38 < 0.4 < 0.4167

37%, 3/8, 0.38, 0.4, 5/12

b) 0.09, 1/8, 8.5%, 0.095, 1/11

1/8 = 0.125 8.5% = 0.085 1/11 = 0.0909

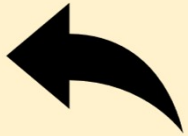
Now compare: 0.085 < 0.09 < 0.0909 < 0.095 < 0.125

8.5%, 0.09, 1/11, 0.095, 1/8

c) Write each as a decimal

5% = 5 ÷ 100 = 0.05 1/8 = 1 ÷ 8 = 0.125

0.5% = 0.5 ÷ 100 = 0.005 3/200 = 3 ÷ 200 = 0.015



3. Unit Conversion

a) 234 miles in 4.5 hours

Speed = distance ÷ time

234 ÷ 4.5 = 52 miles per hour

b) 480 items per hour, for 35 minutes

Per minute: 480 ÷ 60 = 8 items

For 35 minutes: 8 × 35 = 280 items

4. Mean, Median, and Range

72, 85, 91, 88, 74, 79, 94, 88, 83, 76

Sorted: 72, 74, 76, 79, 83, 85, 88, 88, 91, 94

a) Mean

Add them: 72+85+91+88+74+79+94+88+83+76 = 830

830 ÷ 10 = 83

b) Median

10 values, so average the 5th and 6th: 83 and 85

(83 + 85) ÷ 2 = 84

c) Range

94 – 72 = 22

5. Solving for an Unknown in a Ratio

a) Red to blue is 3:7, 90 marbles total

Total parts: $3 + 7 = 10$

One part: $90 \div 10 = 9$ marbles

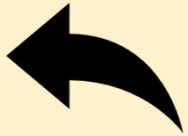
Red is 3 parts: $3 \times 9 = 27$ red marbles

b) Juniors to seniors is 5:4, 27 students total

Total parts: $5 + 4 = 9$

One part: $27 \div 9 = 3$ students

Seniors are 4 parts: $4 \times 3 = 12$ seniors



6. Substituting into a Formula with a Square Root

$$\sqrt{\frac{p(1-p)}{n}}$$

a) p = 0.4, n = 100

$1 - 0.4 = 0.6$, so $0.4 \times 0.6 = 0.24$

$0.24 \div 100 = 0.0024$

$\sqrt{0.0024}$ **= 0.0490**

b) p = 0.5, n = 400

$0.5 \times 0.5 = 0.25$

$0.25 \div 400 = 0.000625$

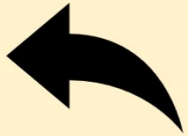
$\sqrt{0.000625}$ **= 0.0250**

c) p = 0.72, n = 250

$1 - 0.72 = 0.28$, so $0.72 \times 0.28 = 0.2016$

$0.2016 \div 250 = 0.0008064$

$\sqrt{0.0008064}$ **= 0.0284**



7. Solve for n in an Inequality

$$1.96\sqrt{\frac{0.7(1-0.7)}{n}} \leq 0.04$$

$$1.96\sqrt{\frac{0.21}{n}} \leq 0.04$$

$$\sqrt{\frac{0.21}{n}} \leq \frac{0.04}{1.96}$$

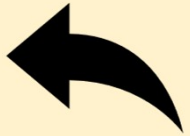
$$\frac{0.21}{n} \leq \left(\frac{0.04}{1.96}\right)^2$$

$$0.21 \leq n\left(\frac{0.04}{1.96}\right)^2$$

$$\frac{0.21}{\left(\frac{0.04}{1.96}\right)^2} \leq n$$

$$504.21 \leq n$$

$$\mathbf{n \geq 504.21 \rightarrow 505}$$



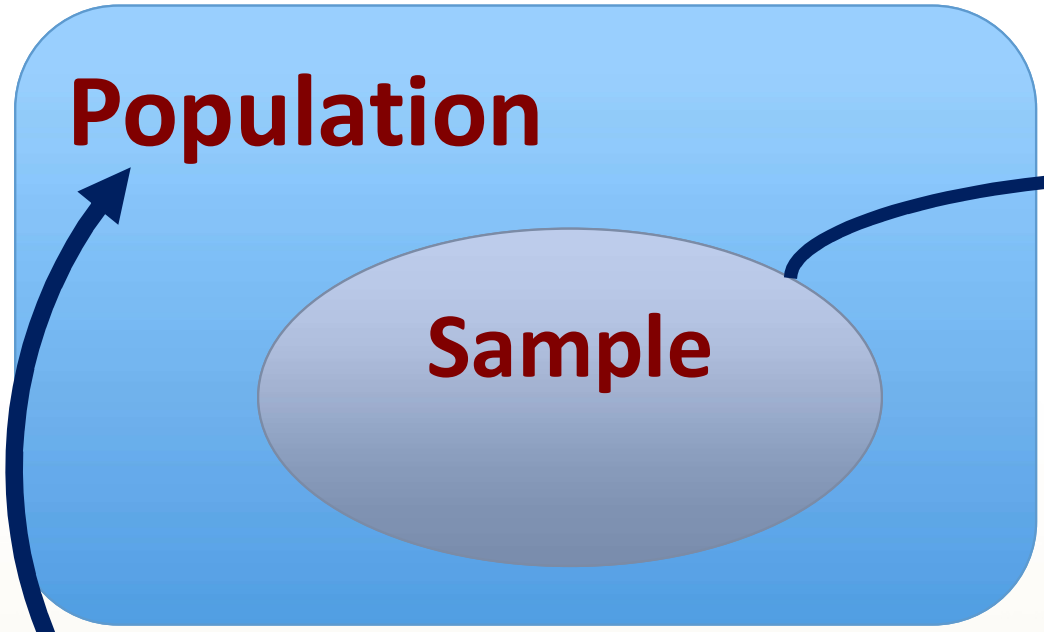
Ordering Bagels

Let’s imagine we are the organizing committee for a large conference. In a planning session, we decided that it would be nice to provide bagels (for breakfast) for the 1500 attendees on both mornings of the conference.

Between this great idea (a month before the conference) and positive feedback in the post-conference survey under the breakfast category, certain things must happen.

What are some decisions that need to be made and how can we make them?

From Data Analysis to Inference



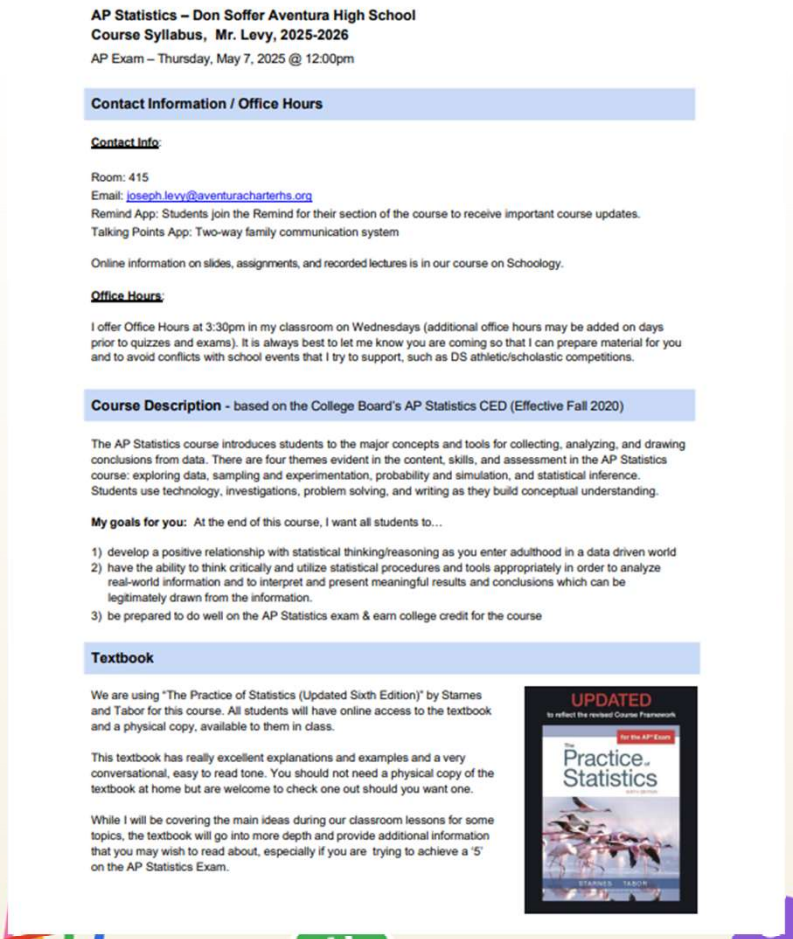
Collect data from a representative **sample**...

Perform **data analysis**...

Make an **inference** about the **population**.

Syllabus Overview / Highlights

- Attendance
- Resources
  - Textbook
  - AP Classroom
  - Office Hours
- Policies:
  - Bathroom
  - Phones/Laptops
  - Calculators
  - Participation
  - Late Work / Makeups / Retakes
  - Academic Integrity



AP Statistics – Don Soffer Aventura High School
Course Syllabus, Mr. Levy, 2025-2026
AP Exam – Thursday, May 7, 2025 @ 12:00pm

Contact Information / Office Hours

Contact Info:

Room: 415
Email: joseph.levy@aventuracharterhs.org
Remind App: Students join the Remind for their section of the course to receive important course updates.
Talking Points App: Two-way family communication system

Online information on slides, assignments, and recorded lectures is in our course on Schoology.

Office Hours:

I offer Office Hours at 3:30pm in my classroom on Wednesdays (additional office hours may be added on days prior to quizzes and exams). It is always best to let me know you are coming so that I can prepare material for you and to avoid conflicts with school events that I try to support, such as DS athletic/scholastic competitions.

Course Description - based on the College Board's AP Statistics CED (Effective Fall 2020)

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes evident in the content, skills, and assessment in the AP Statistics course: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

My goals for you: At the end of this course, I want all students to…

1) develop a positive relationship with statistical thinking/reasoning as you enter adulthood in a data driven world
2) have the ability to think critically and utilize statistical procedures and tools appropriately in order to analyze real-world information and to interpret and present meaningful results and conclusions which can be legitimately drawn from the information.
3) be prepared to do well on the AP Statistics exam & earn college credit for the course

Textbook

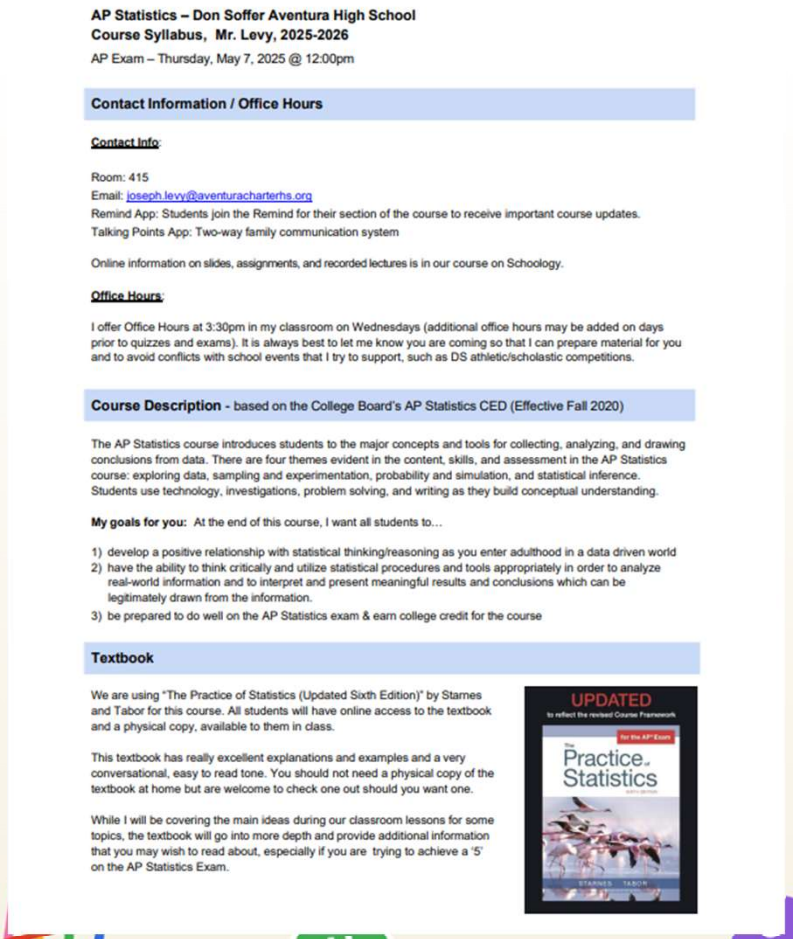
We are using "The Practice of Statistics (Updated Sixth Edition)" by Starnes and Tabor for this course. All students will have online access to the textbook and a physical copy, available to them in class.

This textbook has really excellent explanations and examples and a very conversational, easy to read tone. You should not need a physical copy of the textbook at home but are welcome to check one out should you want one.

While I will be covering the main ideas during our classroom lessons for some topics, the textbook will go into more depth and provide additional information that you may wish to read about, especially if you are trying to achieve a '5' on the AP Statistics Exam.

Syllabus Overview / Highlights

- Incentives
  - Posters
  - AP Score
- Grades/Grading
  - Unit Guided Notes
  - Unit Problem Packets
  - Individual Assignments/Labs
  - Knowledge Checks
  - Quizzes
  - Exams
  - Cumulative Exams



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For Monday

- Homework:
  - Math Prerequisite Worksheet (Part 2)
  - Bring back the signed syllabus if you have not already
  - Have an amazing weekend!