Exam III Wednesday 9-23 in Brookly
(approx 22 multiple choice questions)
(included in 9-22 in recitations)

Exams are taken under the honor code.
You may use 5-6 of your
homework problems.

Expect you will write about 60-65 minutes.
\[ (8+1) \cdot 0.25 = 2.25 \]

\[ \text{Index of lower quartile (25th)} \]

\[ \text{In general, the percentile } \, P_0 = \frac{0.08}{(8+1)} = \frac{8}{9} \cdot 0.25 \]

\[ 2 \leq (m+1) \]

\[ \text{Index of lower quartile (25th)} \]

\[ \text{In the case of} \, (m = \text{integer}) \]

\[ \text{Index} \]

\[ 2 \leq (m+1) \]

\[ w = 8 \]

First order data

Re-arranged by ascending order in recitation.
\[(62 - 10) + 6C \text{ (say) } + \text{ the limit is 86 (say)} \text{ + for this list let it's supposed to no list is 15 + out to 10, 7} \]

Having list + this works

2210 + NO

Between percentage

\[\text{WAX} = (\text{W + 1}) \text{ of } \text{dictionary}\]

\[\text{ON L157 + 2 of end (874 - 74)}\]

-874

\[74 \text{ at}\]

\[\text{at}\]

\[74 \text{ at}\]
Sample standard deviation 
\[ \sigma = \sqrt{\frac{1}{n-1} \sum_{i=1}^{n} (x_i - \bar{x})^2} \]

A is a measure of spread.

Given a list \( \{x_0, x_1, \ldots, x_n\} \), calculate the average 
\[ \bar{x} = \frac{1}{n} \sum_{i=0}^{n} x_i \]

The average of two

From picture
\[
\frac{x}{2} - 2 = 7 - x
\]

\[
\sqrt{2x - 2} = \sqrt{(7x - 2)(7x - 2)}
\]

\[
y = 2x + 1
\]

Properties of \( x \)

\[
y = x - 2
\]

\[
x = 7 - \sqrt{25 + 49}
\]

\[
x = 7 - \sqrt{74}
\]

\[
x = 7 - 8.539
\]

\[
x = 2.461
\]

\[
(0, 2), (8, 12.5) \quad \text{list of #s}
\]

0, 1, 2

What about A?

Note

Remember A

\( \text{Use calculator} \)

\( \text{Pick out correct ans.} \)

\[ y = 2x + 1 \]

\[ y = (8 - 5) + 2(7 - 5) \]

\[ = 3 + 2 = 5 \]
\[ y = \sqrt{\frac{(x+2)^2}{(x^2-4x+4)^2}} - 1 \]

\[ \frac{(x-2)^2}{(x+2)^2} \]

\[ x \neq \pm 2 \]

\[ a \land \beta \land \gamma \land \delta \land \epsilon \land \zeta \land \eta \land \theta \land \iota \land \kappa \land \lambda \land \mu \land \nu \land \xi \land \omicron \land \pi \land \rho \land \sigma \land \tau \land \upsilon \land \phi \land \chi \land \psi \land \omega \]

\[ g(x) = 9 + x + x \]

\[ \text{What about } a? \]
\[ A_c = 14 \text{(given)} \]

\[ F_0 = \frac{9}{5} \cdot 39 + 32 \]

Say a Celsius to Fahrenheit always has \( c = 39 \) \[ F_0 = \frac{9}{5} \cdot c + 32 \]

\[ c > 0 \]

**Core Idea**

\[ \text{By (constant)} \]

\[ \text{Linear Shift} \]

Definition of \( \Delta \)

**Rule**: \( x = |a| \cdot x \)
Not on exam.

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3.5 2.7 6
method?

\[ \bar{x} \pm 1.0 \frac{A}{\sqrt{n}} \]

NO

as \( n \to \infty \),

\[ \bar{x} \pm 1.96 \frac{A}{\sqrt{n}} \]

\(~95\%\)

This has \(~68\%\)

change of enclosing

population mean 4.5

Others

on Exam 1 Bell Curve

Area = 1

Normal Distribution (Bell Curve)

Specific MATH Formula
SIDE OF THE MOUNTAIN
ONE A DAY ETC. etc.
65 FT. AREA IS WITHIN

AVG. DEF.
AVG. STEEPNESS
STOPS
Random samples for n large

\[ \mu \pm 2 \frac{\sigma}{n} \] has around 95% change

Note: \[ \chi^2 \sim \chi^2 \text{ with 1 degree of freedom} \]

\[ x \sim \chi^2(1) \]

On every Bell curve, 95% of population

95\%

More accurately

\[ x \sim \chi^2(1) \]
For if shifted diameters are normal
with mean 2.21 and so 0 or 0.03

Over time the levels will assumed

2.21 6.89 N

100 2.21 + 0.03
0.03
\[ x = \bar{y} = \frac{1}{3} \]

Sample SD (s) = \[ \sqrt{\frac{(0-2)^2 + (4-2)^2 + (2-2)^2}{3-1}} \]

\[ x = \bar{y} = \frac{1}{3} = 2 \]

\[ \sqrt{\frac{(0-2)^2 + (4-2)^2 + (2-2)^2}{3-1}} = \sqrt{\frac{4 + 4}{2}} = \sqrt{4} = 2 \]