

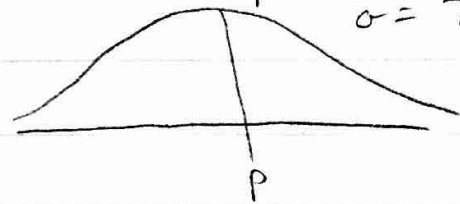
4-8-19

* MODULE 18 INFERENCE

* MODULE 19

- SAMPLING DISTRIBUTION FOR \hat{p} $\sigma = \sqrt{\frac{p(1-p)}{n}}$

σ = STANDARD ERROR



* MODULE 20

- 95% CONFIDENCE INTERVAL

$$\hat{p} \pm 2 \sqrt{\frac{p(1-p)}{n}} = \text{MARGIN OF ERROR}$$

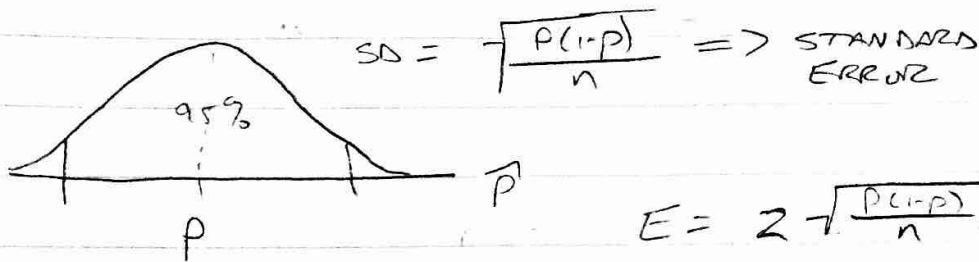
- CHECKS FOR VALIDITY

↳ RANDOM

↳ $np \geq 10$ AND $n(1-p) \geq 10$

MODULE 20 CONFIDENCE INTERVALS for p 4-8-19

• $\hat{p} \pm E$
(POINT ESTIMATE) (MARGIN OF ERROR)



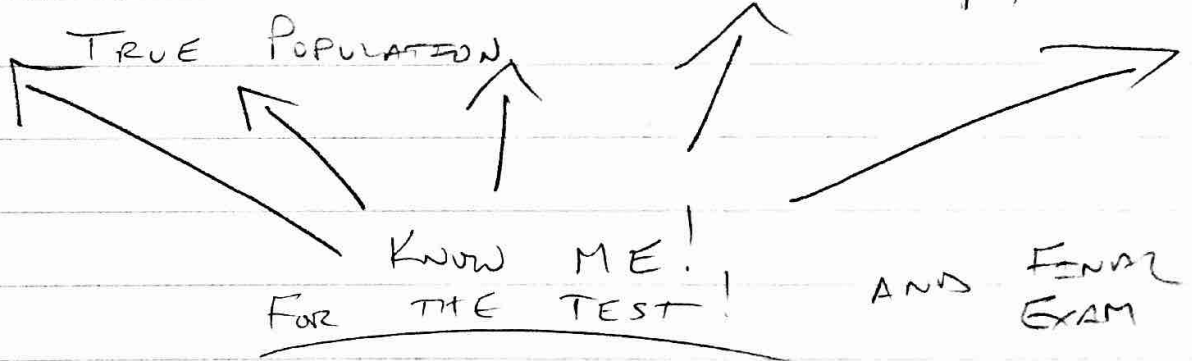
@ 95% CONFIDENCE INTERVALS

TEST

MATERIAL

* WHAT DOES 95% CONFIDENCE MEAN?

- 95% OF SAMPLES WILL CREATE CONFIDENCE INTERVALS THAT WILL CONTAIN p , THE



TEST MATERIAL REVIEW

* MODULE 15 PART I (QUIZ #2)

↳ ASSOCIATION BETWEEN TWO CATEGORICAL VARIABLES

- TWO WAY TABLES (TITANIC EXAMPLES)
- SEGMENTED BAR GRAPHS

MODULE 15 (QUIZ #2)

4-8-19

• PART II - PROBABILITIES

↳ JOINT, MARGINAL, CONDITIONAL

- CONDITIONAL PROBABILITIES

↳ ie SHOW ASSOCIATION

- RULES

• PART III (QUIZ #3)

- PERCENT CHANGE

- COMPLEX PROBABILITIES

↳ EXAMPLE: CHANCE OF "FALSE POSITIVES"

* • MODULE 16

- PROBABILITY DISTRIBUTION

- EXPECTED VALUE (WEIGHTED AVERAGE)

$$\text{↳ } \sum p(x) \cdot x$$

- INDEPENDENCE VS. DISJOINT

* • MODULE 17

- NORMAL DISTRIBUTION

- 68-95-99.7 RULE

- ONLINE CALCULATORS