① GOB Play memory game (Notation Review) /+ ± √A14 ?

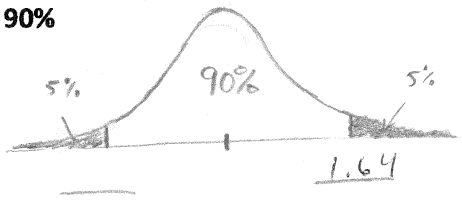
② Review D14 Notes + A14

Return Review Unit IV Test

③ **GOB:**

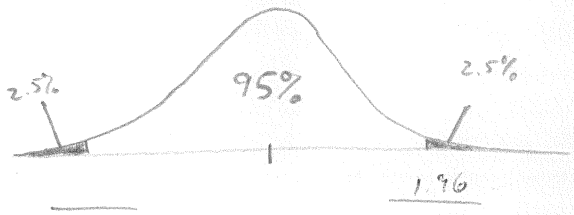
I. For each of the following confidence levels: a) Draw a standard normal curve. b) Calculate and label the upper and lower z-scores associated with the given confidence level.

1) 90%



invNorm(0.5) invNorm(.95)

2) 95%



3) 99%

4) Now write a calculator rule for finding z-scores associated with any level of confidence.

2.58

III. a) Simulate 50 tosses of a fair coin, sum(randInt(0,1,50)). Tales = 0 and heads = 1. I got 22 heads. My sample proportion of heads is 44 %. I'm 90% certain that between 32 % and 56 % will come up heads. (Since we are assuming a fair coin we can use SD not SE). My confidence interval (did / did not) capture the true population proportion, p, of a fair coin. Ask students who missed what they did wrong. (nothing)

$\hat{p} = \frac{22}{50} = 0.44$

$\hat{p} \pm z^* \cdot SE(\hat{p})$

$0.44 \pm 1.645\sqrt{\frac{(0.44)(0.56)}{50}}$

0.44 ± 0.1155

$(32.4\%, 55.6\%)$

$\hat{p} \pm z^* SD(p)$

$0.44 \pm 1.645\sqrt{\frac{(0.50)(0.50)}{50}}$

0.44 ± 0.116

90%

$z^* = |invNorm(\frac{1-0.90}{2})|$

II. Which statement is most helpful and which is most reliable. The weather person predicts:

a) We'll get between 4" and 8" of snow. b) We'll get between 5" and 6" of snow.

Review A14

④ **Take D15 notes**

One-proportion z-interval [Official Name give to this type of confidence interval]	$\hat{p} \pm z^* \times SE(\hat{p})$
Margin of error *(ME)*	How far the confidence interval reaches out from $\hat{p}$ $\hat{p} \pm z^* \times SE(\hat{p})$
z^*	Critical value – the number of standard errors to move away from the mean of the sampling distribution to correspond to the specified level of confidence.
To calculate z* for a particular level of confidence….	$z^* = \lvert invNorm\left(\frac{1 - confidence\ level}{2}\right)\rvert$
Every confidence interval is a balance between ____ and ____	certainty and precision

z^* — not a normal z-score - based on SE

⑤ Explain how to answer A15 Q's by looking at/analyzing formula $ME = |invNorm(\frac{1-CL}{2})|\sqrt{\frac{\hat{p}\hat{q}}{n}}$