**Inference Crisscross**

**ACROSS**

3. The quantity added/subtracted in a CI is the _____ of error
5. The Greek letter for the highest value for a 19-Across result
7. The variable n represents the _____ of a 29-Across
8. A statistical trial in which we have direct influence over variables, as opposed to a study
10. A z value that indicates how far an observed quantity is from \( \mu_0 \) is called a _____ statistic
12. When we don’t know \( \sigma \), we calculate a ____ instead of a z-score [hyph.]
15. A flaw in the method of collection of data that causes one group to be more represented than another
17. A _____ diagram allows probabilities in a sequence of events to be calculated easily
19. Describes a result that suggests a claimed value is not true
22. \( \sigma/\sqrt{n} \) is _____ error
24. Section of a 26-Across curve that is considered when determining a P-value
25. *Reductio ad absurdum*, the method of overturning a false \( H_0 \), is a term from the study of _____
26. Name for the kind of curve used in finding z-scores
29. A small segment of a population used in a statistical study
30. The Greek letter which represents one minus the probability of retaining an incorrect \( H_0 \)
31. Theorem which describes how the distribution of \( \bar{x} \) changes when \( n \) changes [2 wds]

**DOWN**

1. Name of the 6-Down which says that the stated \( \mu \) is not accurate
2. For nursing, the \( \bar{x} \) value in a CI; for business stats, the entire CI
3. The parameter whose value we try to determine with CIs and inference
4. To draw conclusions from data
6. A statement about the 3-Down made during inference
9. The symbol \( \Sigma \) tells you to find the _____ of a group of numbers
11. A mistaken conclusion where an accurate value for \( \mu \) is declared to be inaccurate [3 wds]
13. 90%, 95% and 99% are common values for _____ levels
14. A _____ score marks the difference between a result that is 19-Across and one that is not
16. For \( H_0: \mu > \mu_0 \), use the _____ 24-Across of the curve
18. What a good 29-Across is
20. Name of the 6-Down which says that the stated \( \mu \) is accurate
21. The quantity \( s^2 \) or \( \sigma^2 \)
22. The Greek letter used to symbolize the spread for population data
23. Word that should not be used in the result of inference; instead we “fail to 27-Down”
27. If \( P < \alpha \), we _____ \( H_0 \)
28. To find the P-value for an interval of a density curve, we find the _____ under the curve
29. Symbol added to a variable to indicate that it’s a 14-Down value
SOLUTION
Across.
(3) margin
(5) alpha
(7) size
(8) experiment
(10) test
(12) t-statistic
(15) bias
(17) tree
(19) significant
(22) standard
(24) tail
(25) logic
(26) normal
(29) sample
(30) beta
(31) central limit

Down.
(1) alternative
(2) estimate
(3) mean
(4) infer
(6) hypothesis
(9) total
(11) type I error
(13) confidence
(14) critical
(16) right
(18) random
(20) null
(21) variance
(23) accept
(27) reject
(28) area
(29) star