STAT 3309 - Final Exam Formulas

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| **Hypotheses for a mean or the slope of a regression equation** |
|  | **Critical Value(s)** | **Hypotheses** | **Test Statistic** **Standard deviation known** | **Test Statistic** **Standard deviation unknown** |
| **Mean** | See Z or t table |   |   |  |
|  |  |  |  |  |
| **Slope** |  |  |  |  ,   |

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| **Confidence Interval for** µ |
| CI: population standard deviation known | CI: population standard deviation unknown |
|   |  |

Population mean:  Sample mean: 

Population variance:  Sample variance: 

Discrete mean:  Discrete variance: µ2

Binomial mean:  Discrete variance: 

Binomial variance:  z-score z = $\frac{x- µ}{σ}$

Binomial probability:  Coefficient of variation:

Sample size:  Percentile: 

Empirical Rule uses µ ± σ , µ ± 2σ , µ ± 3σ