

9.7: Formula Review

9.4 Distribution Needed for Hypothesis Testing

Table 9.7.6 Test Statistics for Test of Means, Varying Sample Size, Population Known or Unknown

Sample size	Test statistic
< 30 (σ unknown)	$t_c = \frac{\bar{X} - \mu_0}{s/\sqrt{n}}$
< 30 (σ known)	$Z_c = \frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$
> 30 (σ unknown)	$Z_c = \frac{\bar{X} - \mu_0}{s/\sqrt{n}}$
> 30 (σ known)	$Z_c = \frac{\bar{X} - \mu_0}{\sigma/\sqrt{n}}$

9.5 Full Hypothesis Test Examples

Test statistic for a hypothesis test of proportions:

$$Z_c = \frac{p' - p_0}{\sqrt{\frac{p_0 p_0}{n}}}$$

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