

	z-test	One-sample t test	Paired t-test	Independent t-test	
			Define difference score	Equal variance	Unequal variance
			$D = X_2 - X_1$	$F_{(n-1,n-2)} = \frac{s_1^2}{s_2^2}$	
sample variance	σ^2	$s^2 = \frac{SS}{df}$	$s^2 = \frac{SS}{df}$	$s_p^2 = \frac{df_1 s_1^2 + df_2 s_2^2}{df_1 + df_2}$	s_1^2, s_2^2
(estimated) standard error	$\sigma_M = \sqrt{\frac{\sigma^2}{n}}$	$s_M = \sqrt{\frac{s^2}{n}}$	$s_{MD} = \sqrt{\frac{s^2}{n}}$	$\sqrt{s_p^2(\frac{1}{n_1} + \frac{1}{n_2})}$	$\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$
z or t statistic	$z = \frac{M - \mu}{\sigma_M}$	$t = \frac{M - \mu}{s_M}$	$t = \frac{M_D - \mu_D}{s_{MD}}$	$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{s_p^2(\frac{1}{n_1} + \frac{1}{n_2})}}$	$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$
Degrees of freedom	None	$df = n - 1$	$df = n - 1$	$df = n_1 + n_2 - 2$	$df = d' = \frac{(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2})^2}{(\frac{s_1^2}{n_1})/(n_1 - 1) + (\frac{s_2^2}{n_2})/(n_2 - 1)}$
Cohen's d	$d = \frac{M - \mu}{\sigma}$	$d = \frac{M - \mu}{s}$	$d = \frac{M_D}{s}$	$d = \frac{\bar{X}_1 - \bar{X}_2}{s_p}$	
Effect size		$r^2 = \frac{t^2}{t^2 + df}$	$r^2 = \frac{t^2}{t^2 + df}$	$r^2 = \frac{t^2}{t^2 + df}$	$r^2 = \frac{t^2}{t^2 + df}$
Confidence Interval	$M \pm z(\sigma_M)$	$M \pm t(s_M)$	$M_D \pm t(s_{MD})$	$(\bar{x}_1 - \bar{x}_2) \pm t \sqrt{s_p^2(\frac{1}{n_1} + \frac{1}{n_2})}$	$(\bar{x}_1 - \bar{x}_2) \pm t \sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}$