

$$t = \frac{|\bar{y}_{\text{ref}} - \bar{y}|}{\sqrt{\frac{\sigma_{\text{ref}}^2}{N_{\text{ref}}} + \frac{\sigma_y^2}{N}}}$$

Eq. 1065.602-5

$$v = \frac{\left(\frac{\sigma_{\text{ref}}^2}{N_{\text{ref}}} + \frac{\sigma_y^2}{N}\right)^2}{\frac{\left(\frac{\sigma_{\text{ref}}^2}{N_{\text{ref}}}\right)^2}{N_{\text{ref}} - 1} + \frac{\left(\frac{\sigma_y^2}{N}\right)^2}{N - 1}}$$

Eq. 1065.602-6

Example:

$$\bar{y}_{\text{ref}} = 1205.3$$

$$\bar{y} = 1123.8$$

$$\sigma_{\text{ref}} = 9.399$$

$$\sigma_y = 10.583$$

$$N_{\text{ref}} = 11$$

$$N = 7$$

$$t = \frac{|1205.3 - 1123.8|}{\sqrt{\frac{9.399^2}{11} + \frac{10.583^2}{7}}}$$

$$t = 16.63$$