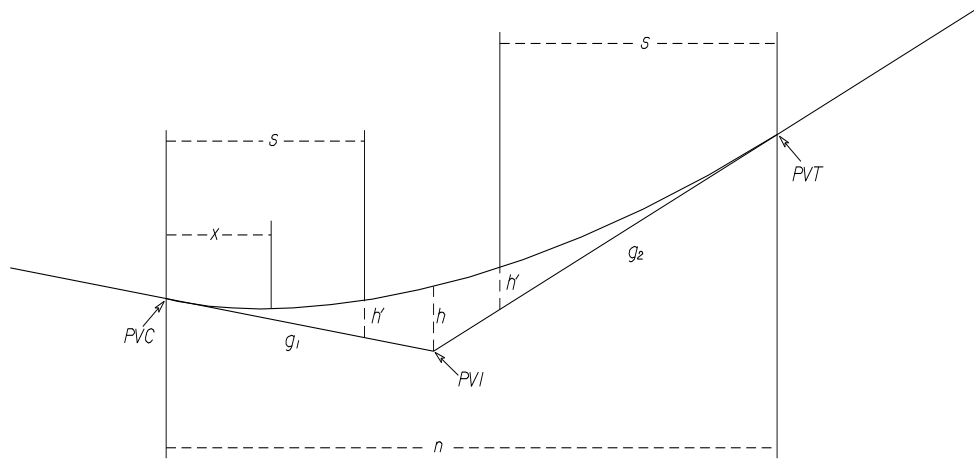


VERTICAL CURVE FORMULAE



h = center orientation
 h' = correction at any point on curve
 n = length of vertical curve in feet
 g_1 = grade in expressed as feet per foot. For example, 2% would be expressed as 0.02.
 g_2 = grade out expressed the same as grade in.
 s = horizontal distance, on curve measured from nearest end of curve, in feet.
 x = horizontal distance, in feet, measured from PVC to point on curve
 y = elevation of any point on vertical curve in feet
 y' = elevation at PVC, in feet

$$1) h = \frac{n}{8} (g_1 - g_2)$$

$$2) h' = h \left(\frac{2s}{n} \right)^2$$

Elevation Equation for any point on curve: $y = y' + g_1(x) + \left(\frac{g_2 - g_1}{2n} \right) (x)^2$

Equation for Low or High Point of Curve: $x = \left(\frac{-gn}{g_2 - g_1} \right)$