

$$a = 718 \text{ chs.} \times 6.65165 = 7' 47'' .0$$

$$\text{Colatitude} = 90^\circ - 49^\circ 43' 19'' = 40^\circ 16' 41''$$

$$\beta = 40^\circ 16' 41'' + \frac{7' 47'' .0}{2} = 40^\circ 20' 35''$$

$$\gamma = a = 40^\circ 12' 47''$$

$$\text{Log. sin. } (\beta - a) = 9.8099851$$

$$\text{Log. sin. } \gamma = 9.8111477$$

$$2) 9.0988374$$

$$\text{Log. tan. } \frac{1}{2} \text{Az.} = 9.9994187$$

$$\frac{1}{2} \text{ch. Az.} = 14^\circ 57' 42''$$

$$\text{Ch. Az.} = 89^\circ 55' 24'' \text{ from the N.}$$

$$90^\circ - 0^\circ = 0^\circ$$

$$\frac{1}{2} \text{Convergence} = 4'.36$$

Similarly the half convergence for townships laid out on the south side of Niven's 2nd Base line is equal to 4' 40" and the length of the southern boundaries of the Townships is 721^c 91^{1/8} the latitude being 49° 27' 41".