CIVL 7132 Advanced Soil Mechanics
Spring 2019 - Homework 3

Below are the results from a consolidation test on a clay soil. The soil specimen had an initial height of 1.00 in and diameter of 3.175 in. The void ratio of the specimen at the start of the test was 1.21 and the results below are from the first load increment, which was 0.25 tsf.

Elapsed Time (min)	Dial Reading (in x 10^{-4})
0	1188
0.1	1228
0.25	1234
0.5	1239
1	1247
2	1258
4	1274
8	1297
16	1321
32	1339
64	1349
128	1354
256	1358
456	1360

Determine the deflection at the start of primary consolidation (δ_0) using an appropriate method, then determine the coefficient of consolidation (c_v) using the three methods we studied in class (Casagrande, Taylor, and Inflection Point).