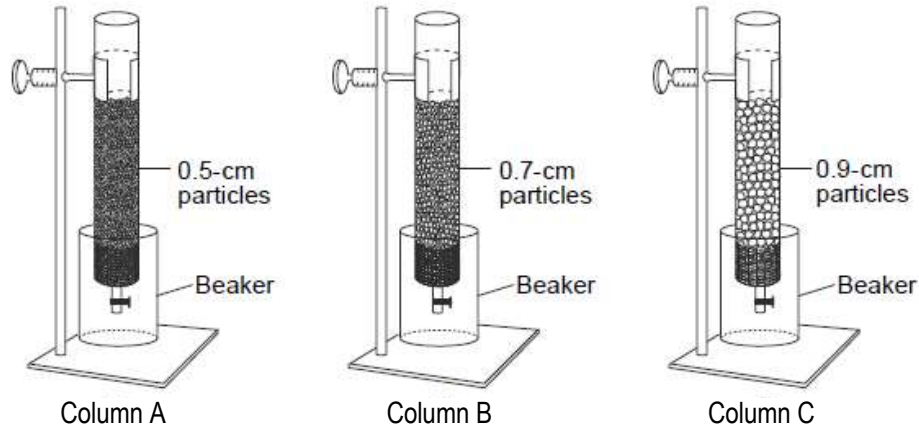Infiltration Lab Calculations Practice

Three similar tubes, each containing a specific soil of uniform particle size and shape were used to study the effect that different particle size has on permeability. The measured distance that the water traveled in each of the bead columns was 55cm.

Water was poured into each tube and the time the water took to travel between the dashed line and the bottom of the tube was recorded. Each column was tested 3 times.

1. Complete the data chart below by calculating the average infiltration time and average infiltration rate.
2. Make sure to round all calculations to the hundredths place.
3. Make sure indicate the correct units on the blank lines provided in the first column of the data chart.

Measurement / Calculation	Column A (0.5 cm particles)	Column B (0.7 cm particles)	Column C (0.9 cm particles)
Infiltration Time 1 **(sec)**	7.15	4.30	2.48
Infiltration Time 2 **(sec)**	7.08	4.41	2.52
Infiltration Time 3 **(sec)**	7.13	4.12	2.50
Average Infiltration Time **(sec)**	**7.12**	**4.28**	**2.50**
Average Infiltration Rate **(cm/sec)**	55/7.12 **7.72**	55/4.28 **12.85**	55/2.5 **22.00**