STEM ED/CHM Nanotechnology at UMass Amherst

Oleic Acid Thin Film Worksheet
(without hints for doing the calculations)

Step 1	Write the fraction of oleic acid in 1.0 cm^3 of the first solution.	
Step 2	Change the fraction of oleic acid from Step 1 to a decimal form.	
Step 3	Determine the volume of oleic acid in 1.0 cm^3 of the second solution.	
Step 4	Record the number of drops in 1.0 cm^3 of the second solution.	
Step 5	Determine the volume of oleic acid in one drop of the second solution.	
Step 6	Record the average radius of the circular area of the thin film (in centimeters).	
Step 7	Record the area of the thin layer of oleic acid in square centimeters.	
Step 8	Record the thickness of the thin layer of oleic acid in centimeters.	
Step 9	Convert the thickness of the thin layer of oleic acid from centimeters to meters.	