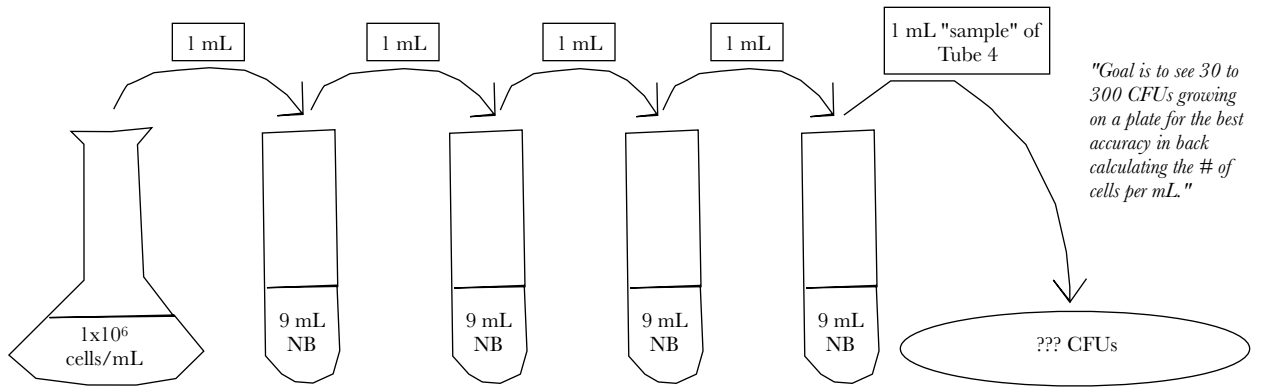
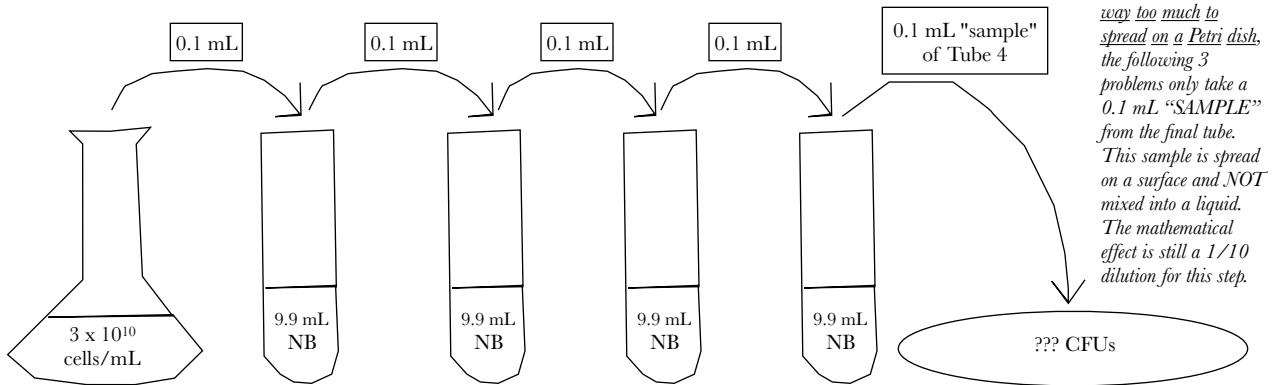


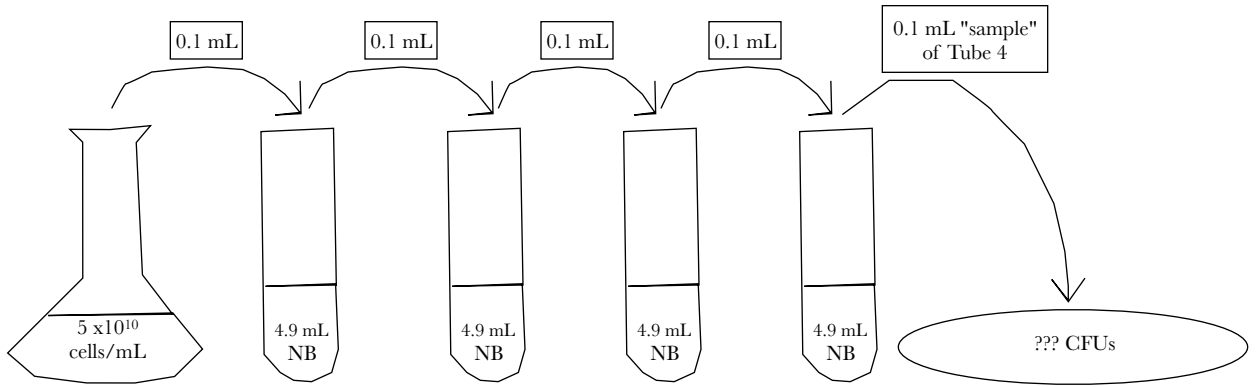
Serial Dilution Practice Problems:



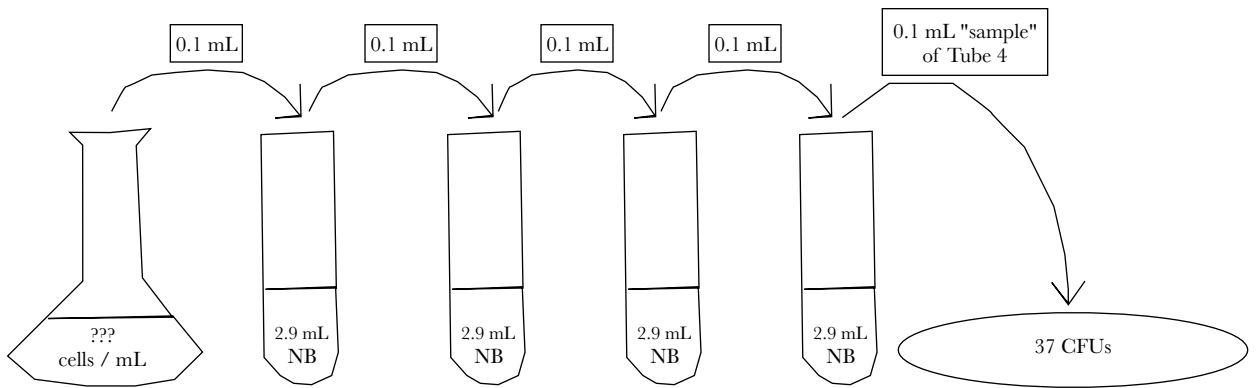
Stock Concentration in Flask	Flask	Tube 1	Tube 2	Tube 3	Tube 4	Number of Colony Forming Units (CFUs) grown from Tube 4
Dilution "per Transfer"		1/10	1/10	1/10	1/10	1 mL to 1 plate = 1/1 = 1* *note 1 mL has no effect here. 1mL is also TOO much to spread on a plate!!
Total Dilution		1/10	1/100	1/1,000	1/10,000	1/10,000
Dilution Factor		10 or 1 x10 ¹	100 or 1 x10 ²	1,000 or 1 x10 ³	10,000 or 1 x10 ⁴	10,000 or 1 x10 ⁴
# of Cells per mL	1 x 10 ⁶ cells / mL or 1,000,000 cells / mL	1 x 10 ⁵ cells / mL or 100,000 cells / mL	1 x 10 ⁴ cells / mL or 10,000 cells / mL	1 x 10 ³ cells / mL or 1,000 cells / mL	1 x 10 ² cells / mL or 100 cells / mL	1 x 10 ² CFUs inoculated on plate (same as 100 CFUs) GOOD! 100 is between 30 and 300 CFUs!



Stock Concentration in Flask	Flask	Tube 1	Tube 2	Tube 3	Tube 4	Number of Colony Forming Units (CFUs) grown from Tube 4
Dilution "per Transfer"						
Total Dilution						
Dilution Factor						
# of Cells per mL						



Stock Concentration in Flask	Flask	Tube 1	Tube 2	Tube 3	Tube 4	Number of Colony Forming Units (CFUs) grown from Tube 4
Dilution "per Transfer"						
Total Dilution						
Dilution Factor						
# of Cells per mL						



Stock Concentration in Flask	Flask	Tube 1	Tube 2	Tube 3	Tube 4	Number of Colony Forming Units (CFUs) grown from Tube 4
Dilution "per Transfer"						
Total Dilution						
Dilution Factor						
# of Cells per mL						3.7 x 10 ¹ cells inoculated on plate = 37 CFUs growing on plate