Required response record

MI / Genetics of Disease - September 17, 2026

Your assigned four-step dilution plan

For this paper-planning lesson, use an illustrative starting concentration of 1000 units/mL. Plan four 1:10 steps, using the preceding step as the next starting point. These are calculated values, not measurements of a prepared solution.

Each 1:10 step uses one part of the preceding sample and nine parts solvent. That makes ten total parts, so divide the preceding concentration by 10. Do not divide by 9 or restart from 1000 at every step.

The calculations predict concentrations under the stated ratios. They do not show what was actually mixed, establish a test result or diagnose a patient. This is a paper-planning task; no samples, reagents or equipment are used.

Five rows: one given starting-stock row and four steps. Write units/mL with every resulting concentration.

Row	Preceding concentration (units/mL)	Calculation	Resulting concentration (units/mL)
Starting stock (given)	Not applicable	Given illustrative input	1000 units/mL
Step 1: use starting stock			
Step 2: use Step 1			
Step 3: use Step 2			
Step 4: use Step 3			

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One conditional signal prediction

For this classroom model, assume signal increases with concentration within its useful range. Your prediction is conditional on that assumption. It is not a measured result or a rule for every assay format.

Write one sentence predicting the direction of signal change across your four steps under the stated assumption. Explain how the planned concentration change supports that prediction.

My record labels 1000 units/mL as an illustrative starting value, not a measurement.

I completed four 1:10 steps after the starting-stock row, using the preceding row each time.

Every step shows its calculation and resulting concentration in units/mL.

My single prediction names or clearly uses the stated signal assumption and does not claim a measured test result.

I submit one PDF, unless the same work was already collected on paper.

Submit one PDF of your completed table and one signal-prediction sentence to Wk4 Data table: Concentration and serial dilution by September 17 at 11:59 PM. If I collected this work on paper, do not upload a second copy. This is 5 points in Daily Work. Do not submit guided notes or a second notebook file.

Wk4 Data table: Concentration and serial dilution

https://clevelandmetro.schoology.com/assignment/8520302762

Required reading and separate worked model

https://mendozabiomed.org/learn/pltw-gend/day/2026-09-17

Guided notes are optional support. The starting value, calculation rule, record and prediction assumption are provided in the required lesson materials. No guided-notes submission is required.