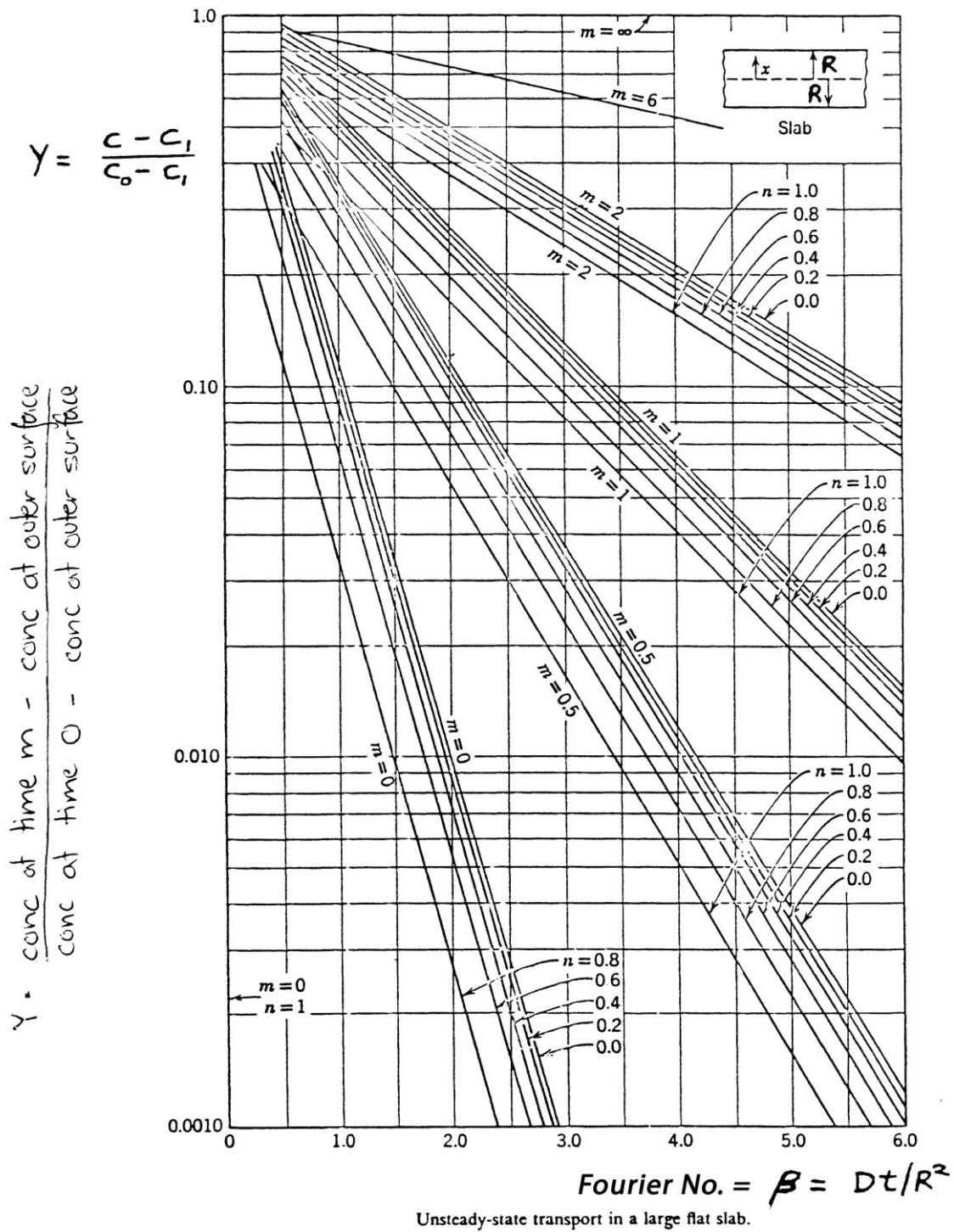


Figure 1
POINT LOCATION IN A SLAB



$$n = \frac{x}{R}$$

$$m = 1/Bi$$

Submit with your Answerbook

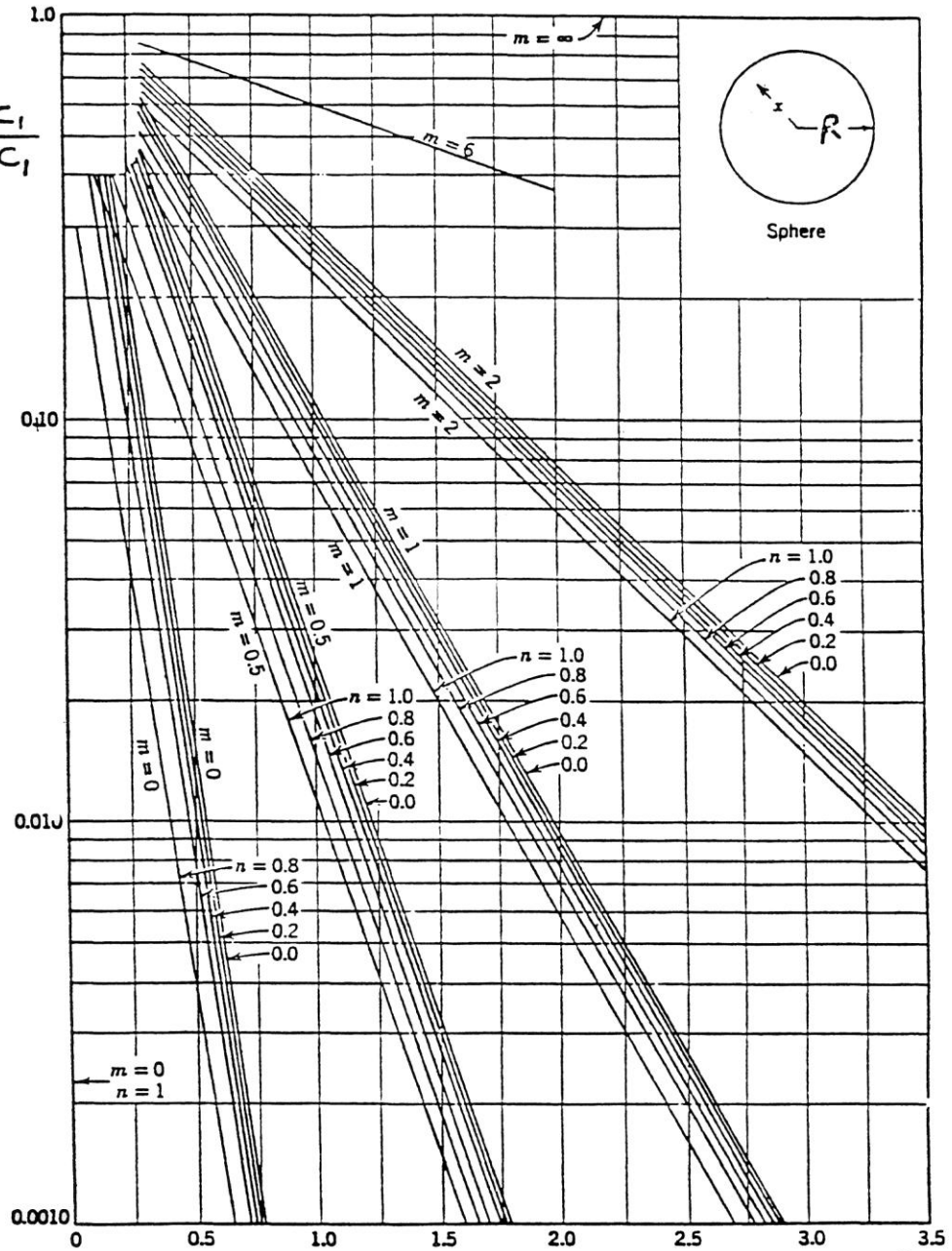
Name _____ Student ID _____

Figure 3

POINT LOCATION IN A SPHERE

$$Y = \frac{c - c_1}{c_0 - c_1}$$

Y = $\frac{\text{conc at time } m - \text{conc at outer surface}}{\text{conc at time } 0 - \text{conc at outer surface}}$



$$\text{Fourier No.} = \beta = Dt/R^2$$

Unsteady-state transport in a sphere.

$$n = \frac{x}{R}$$

$$m = 1/\beta$$

Submit with your Answerbook

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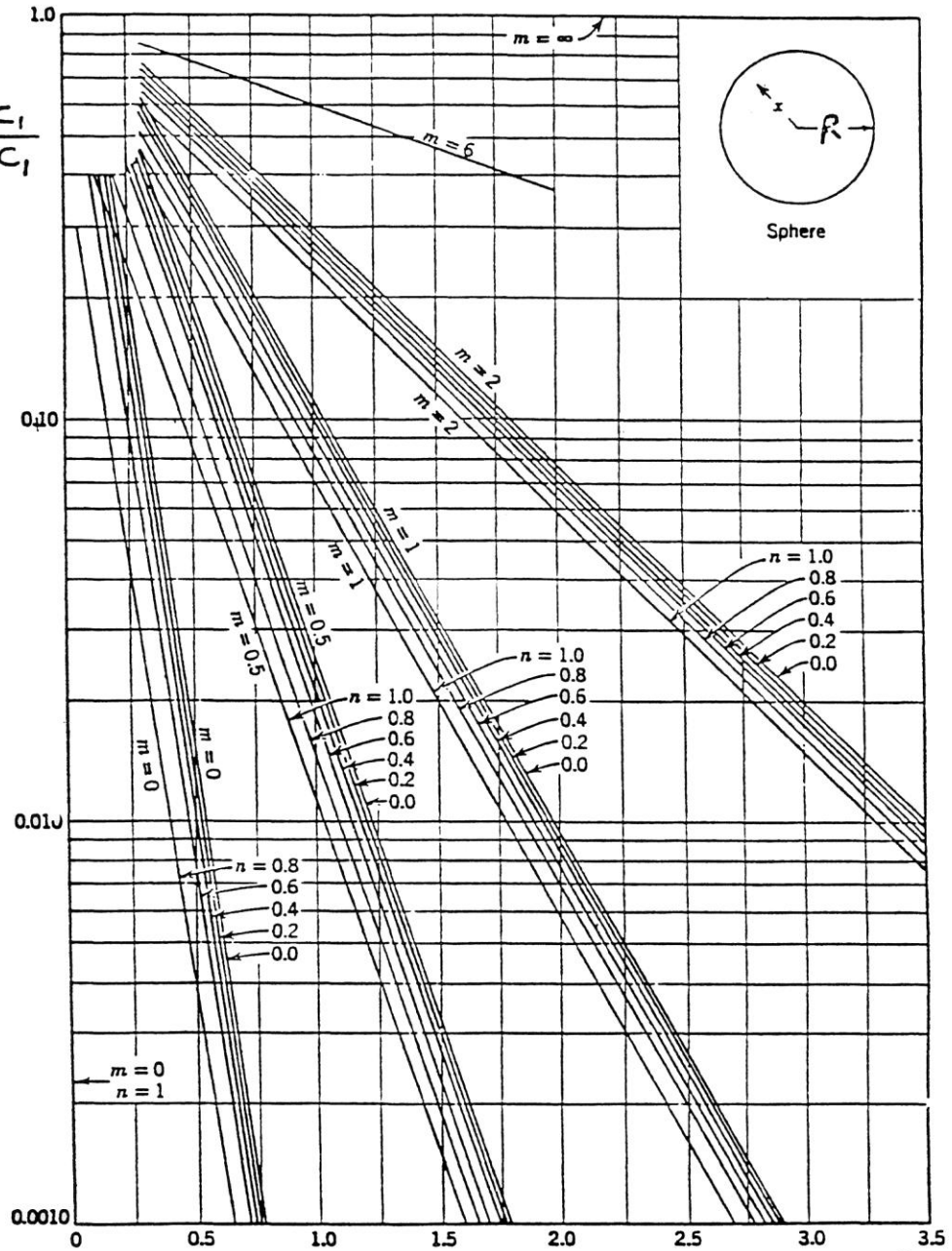
Student ID _____

Figure 3

POINT LOCATION IN A SPHERE

$$Y = \frac{\text{conc at time } m - \text{conc at outer surface}}{\text{conc at time } 0 - \text{conc at outer surface}}$$

$$Y = \frac{c - c_1}{c_0 - c_1}$$



$$\text{Fourier No.} = \beta = Dt/R^2$$

Unsteady-state transport in a sphere.

$$n = \frac{x}{R}$$

$$m = 1/\beta$$

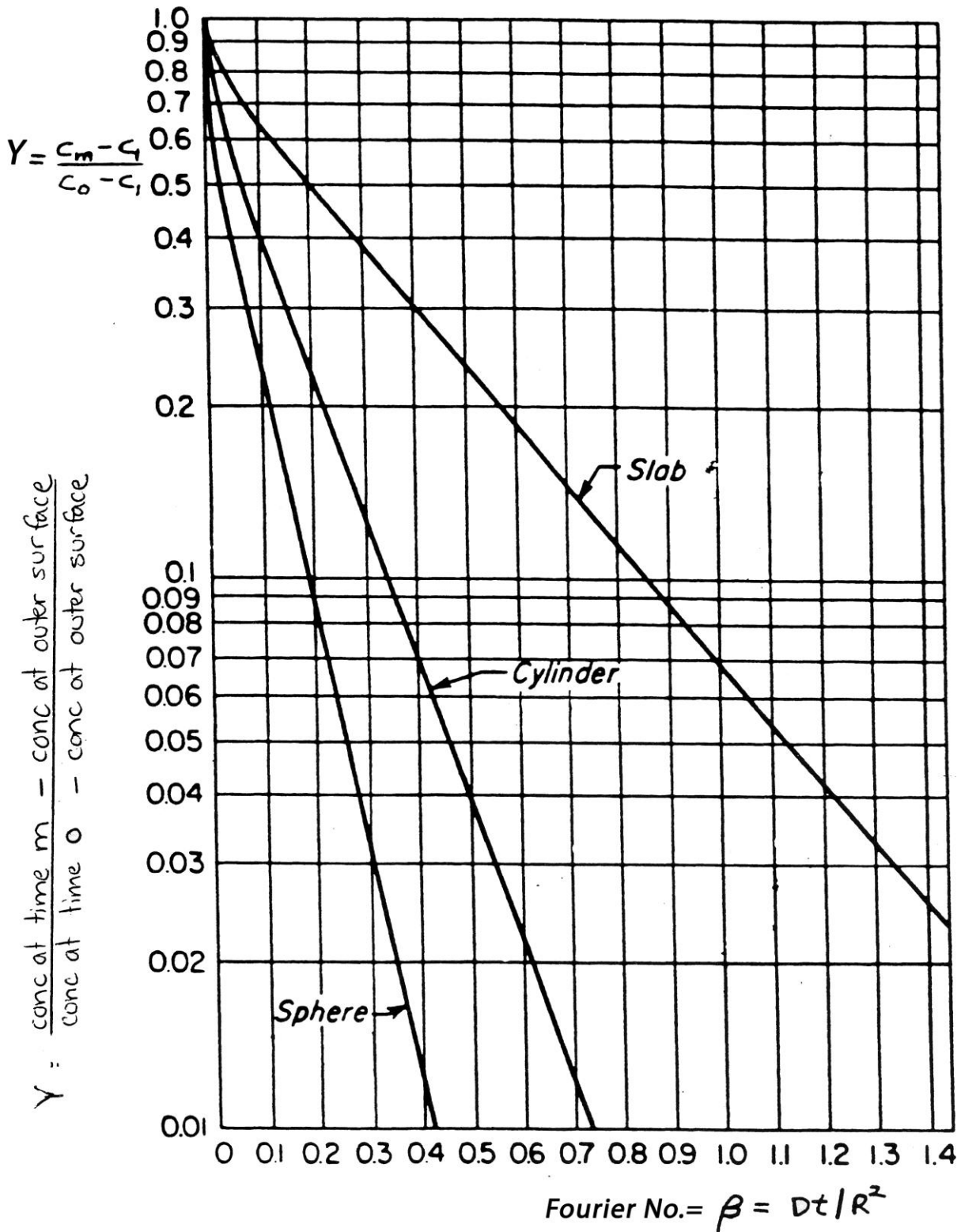
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Figure 4

AVERAGE



Plot of Y versus β to find mean concentrations in diffusion processes where all resistance to diffusion is within the solid ($Bi = \infty$)

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