# Quiz 4

Name_____

Q1. Compare three given growth models for plant disease progress and rank the three models in terms of which has the highest disease level at Time 20, Time 60, and Time 100.

Exponential Model Example:    plotexp(0.0017, 0.016, 100)
Monomolecular Model:            plotmono(0.0010, 0.0001, 100)
Logistic Model:                       plotlog(0.001, 0.01636, 100)

| | Model with the highest disease level |
|---|---|
| Time 20 | |
| Time 60 | |
| Time 100 | |

Q2. Compare exponential and power law dispersal gradient models using the given parameter combination and find out which model shows higher disease incidence at distance 5 m, 10 m, 30 m, and 50 m from source.

        plot.exp.power(a1=164.9, a2=16.59,
                b1=1.5, b2=0.1,
                max1=60, max2=60)

| | Model with higher disease incidence |
|---|---|
| 5 m | |
| 10 m | |
| 30 m | |
| 50 m | |

Q3. What growth models do you think would be good choices for modeling disease progress over time in your class project system, and why?

Q4. What disease gradient models do you think would be good choices for modeling in your class project system, and why?