

MAP 4484 Modeling in Mathematical Biology: Spatial Ecology

Extra Practice Problems: Spatial Ecology

1. How would you calculate the average number of individuals per unit area in a population?

To calculate the average number of individuals per unit area in a population, you would first need to calculate the total number of individuals in the population. Then, divide the total number of individuals by the total area of the population.

Answer: Average number of individuals per unit area = Total number of individuals / Total area of population

[CORRECT]

2. Calculate the average number of individuals per unit area in a population with a total of 500 individuals and an area of 10 square meters.

Answer: Average number of individuals per unit area = $500 / 10 = 50$ individuals per square meter

[CORRECT]

3. How would you calculate the density of a population?

To calculate the density of a population, you would need to calculate the total number of individuals in the population and divide it by the total area of the population.

Answer: Density = Total number of individuals / Total area of population

[CORRECT]

4. Calculate the density of a population with a total of 500 individuals and an area of 10 square meters.

Answer: Density = $500 / 10 = 50$ individuals per square meter

[CORRECT]