

Topic 5 Introduction to Nonlinear Functions

Answer Key

Model an Insect Population, Part 1 (BLM 1)

For $k = 2$, the population stabilizes after 6 cycles; for $k = 1$, the population decreases slowly; for $k = 1.5$, the population stabilizes after 26 cycles. Check students' explanations.

Model an Insect Population, Part 2 (BLM 2)

For $k = 0.5$, the population dies out after about 7 cycles; for $k = 3$, the population oscillates between two values after about 14 cycles; for $k = 4$, the population oscillates up and down. Check students' explanations.

Model an Insect Population, Part 3 (BLM 3)

For $k = 2$, the population stabilizes after 6 cycles; for $k = 4$, the population decreases slowly; for $k = 4$, the population oscillates up and down. Check students' explanations.

Analyze an Insect Population (BLM 4)

Check students' work. Extension questions are optional; check students' work.