**Trout** **A lake is stocked with 200 trout. The graph shows the growth of the trout population. In Exercises 15–18, use the graph.** *(See Example 5.)*

15. What is the maximum sustainable population? Explain your reasoning.

16. Make a table that shows the change in the number of trout for each year. Discuss any trends.

DATA 17. Make a table that shows the percent change in the number of trout for each year. Discuss any trends.

Growth of a Trout Population

Number of trout vs. Year: 200, 350, 595, 966, 1469, 2056, 2633, 3113, 3459, 3684, 3820, 3899, 3944

18. Make a table comparing the number of trout for each year in the graph to the number of trout each year if the trout population grew exponentially by 60% each year. Why is exponential growth unrealistic in this situation?
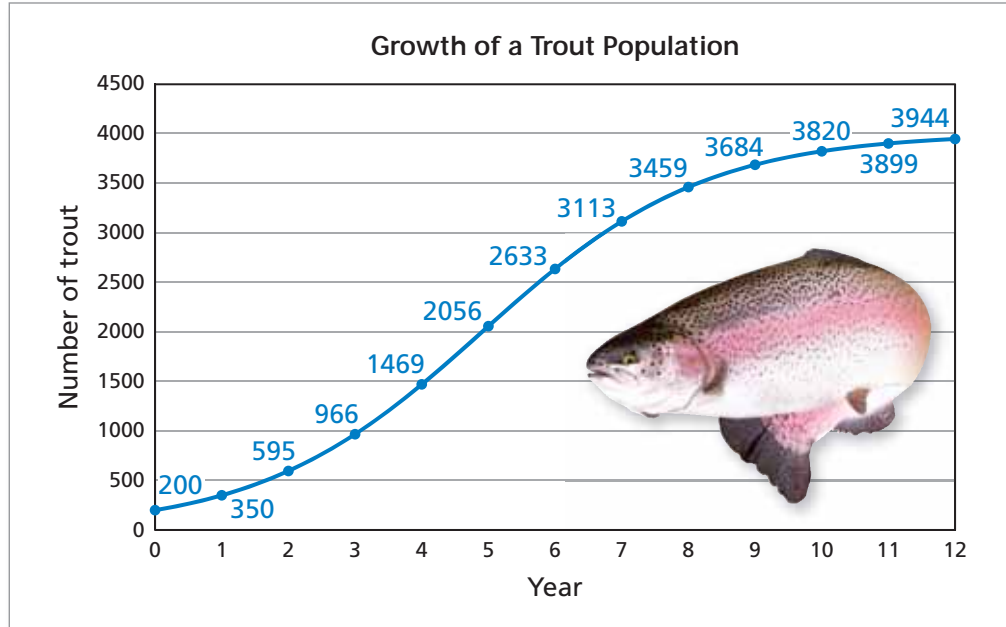
Competing Species **The graphs show the growth of the populations of two competing species of fish when they are released into separate ponds and when they are released into the same pond. Assume all the ponds are the same size and have the same resources. In Exercises 19 and 20, use the graphs.** *(See Example 6.)*

Growth of Populations in Separate Ponds

Species A, Species B

Growth of Populations in the Same Pond
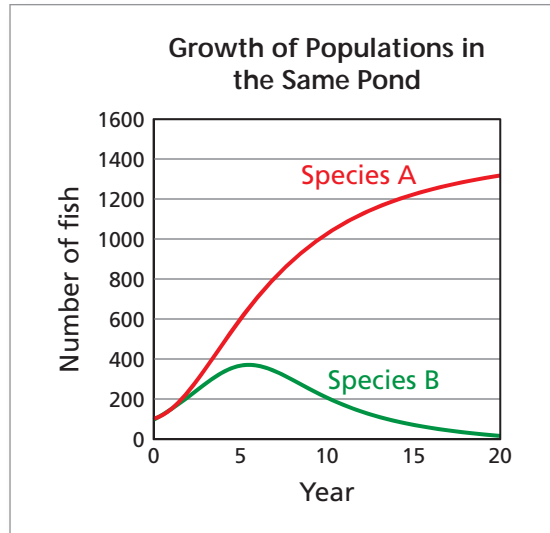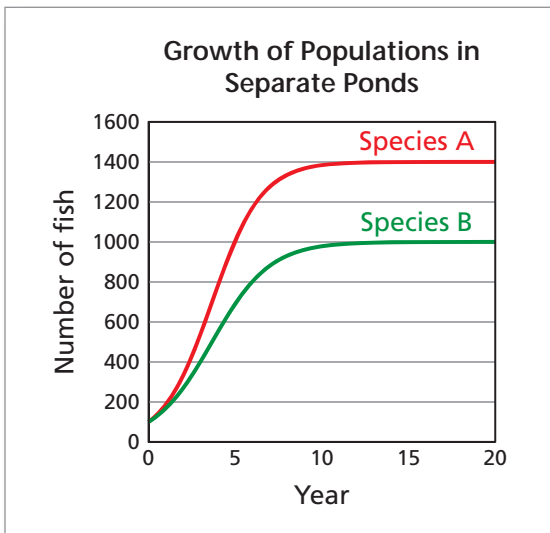
Species A, Species B

19. Compare the growth of the populations of the two species when they are released into separate ponds.

20. Compare the growth of the populations of the two species when they are released into the same pond.