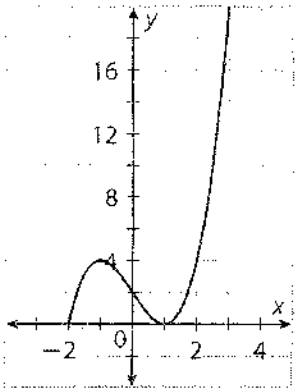
Name ANSWERS Date _____ Class _____

LESSON 1-2

Characteristics of Function Graphs

Practice and Problem Solving: A/B

Use the graph to answer Problems 1–4.



1. On which intervals is the function increasing and decreasing?

increasing: $[-2, -1]$ $[1, +\infty)$

decreasing $[-1, 1]$

2. What are the local maximum and minimum values?

max: 4

min: 0

3. What are the zeros of the function?

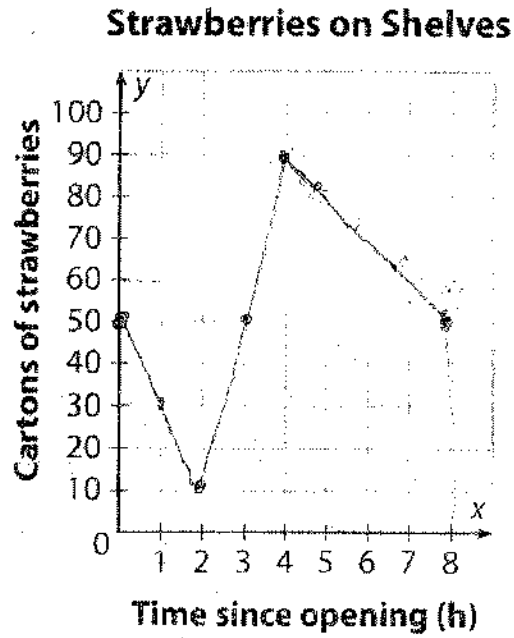
$-2, 1$

4. What is the domain and range?

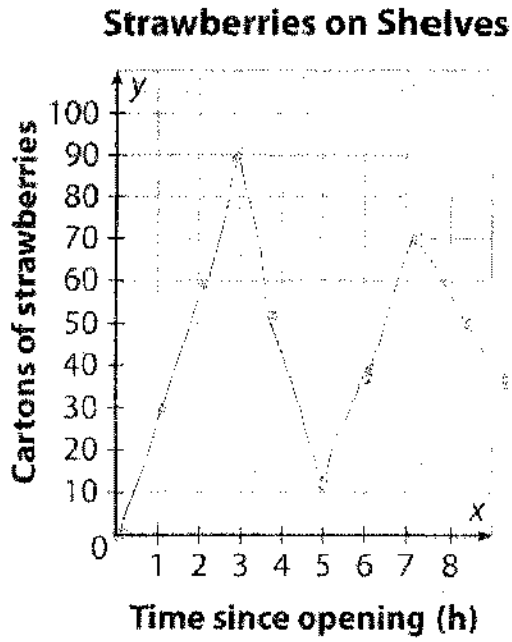
domain $[-2, +\infty)$

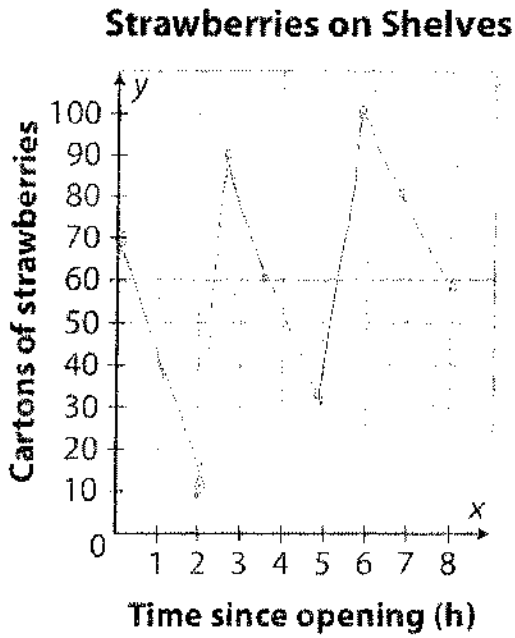
range $[0, +\infty)$

5. A road-side stand stocks shelves with 50 cartons of strawberries before it opens. For the next two hours the stand is open, it sells 20 cartons per hour. Over the next 2 hours, the stand owner restocks 40 cartons each hour, and no cartons of strawberries are sold. Then for the next 4 hours, 10 cartons are sold each hour. Sketch a graph of the function.



6. A fruit stand begins with no cartons of strawberries. For the first three hours, the owner restocks 30 cartons each hour, and no cartons are sold. For the two hours the stand is open, the owner sells 40 cartons per hour. Over the next 2 hours, she restocks 30 cartons each hour, and no cartons of strawberries are sold. Then for the next 2 hours, 20 cartons are sold each hour. Sketch a graph of the function.





7. A strawberry stand stocks its shelves with 70 cartons of strawberries before opening. For the first two hours the stand is open, it sells 30 cartons per hour. Over the next hour, the clerk restocks 80 cartons and no cartons of strawberries are sold. Then for the next 2 hours, 30 cartons are sold each hour. Over the next hour, the clerk restocks 70 cartons and no cartons of strawberries are sold. Then for the next 2 hours, 20 cartons are sold each hour. Sketch a graph of the function.

one possible answer

8. A small strawberry stand begins with plenty of strawberries. For the first two hours, sales are slow, but in the third hour, all the remaining cartons are sold. For an hour, the owner restocks cartons to the original amount and no cartons are sold. For the next hour, the cartons sell very quickly. Then the stand closes for a one-lunch break. Then in the last two hours, sales are slow. Sketch a graph of the function.