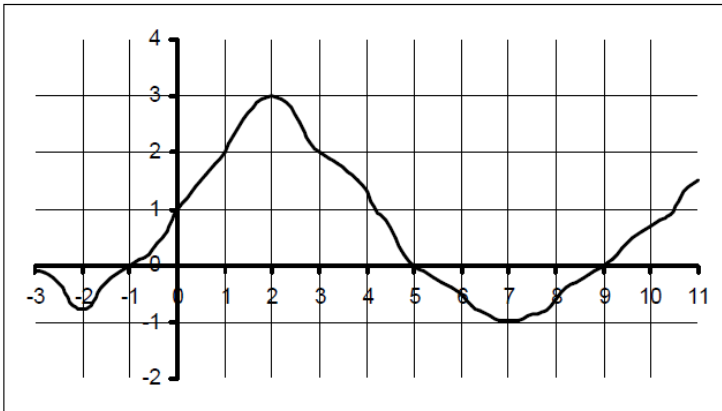


AP Calculus AB – Worksheet 1

READING GRAPHS OF FUNCTIONS

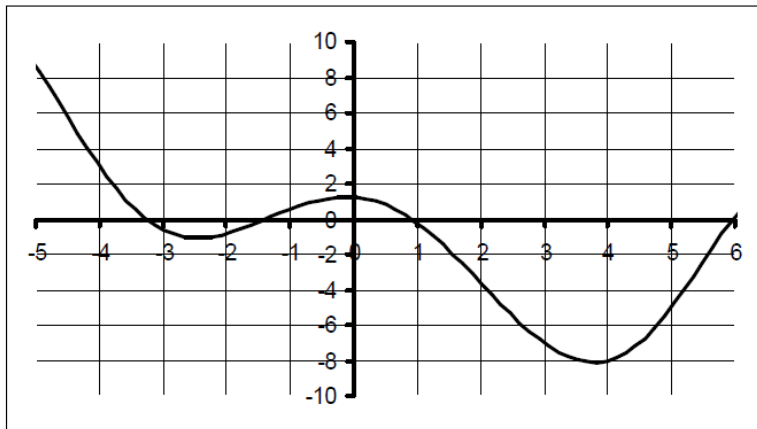
1. Use the graph below to answer the following:

- A. Find $f(0)$.
- B. Find $f(7)$.
- C. Find $f(2)$.
- D. Is $f(6)$ positive or negative?
- E. Is $f(-1/2)$ positive or negative?
- F. Is $f(1) > f(6)$?
- G. For what values of x is $f(x) = 0$?
- H. For what values of x is $f(x) > 0$?

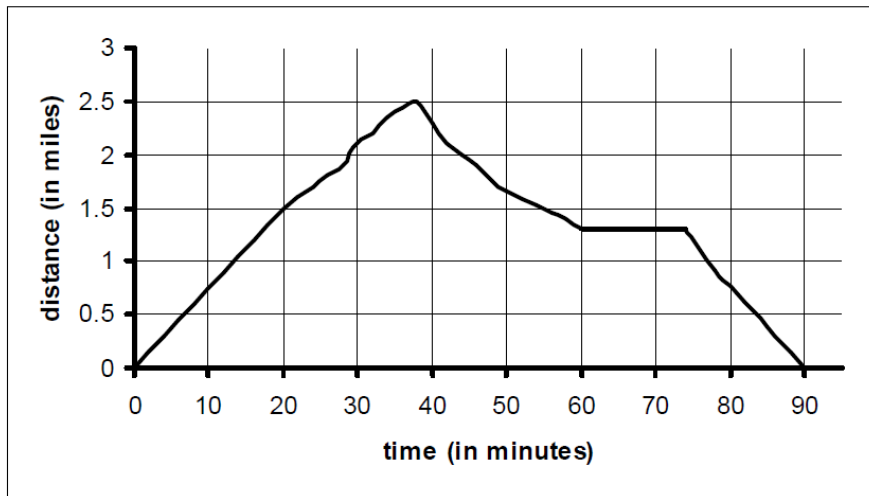


2. Use the graph below to answer the following:

- A. What is $f(2)$?
- B. Find x so that $f(x) = 3$.
- C. Find the zeros of $f(x)$.
- D. What is $f(f(2))$?
- E. On what intervals is $f(x)$ increasing?
- F. For what value, if any, is $f(x) = x$?
- G. On what intervals is the rate of increase of $f(x)$ actually decreasing?



Holly, who is fortunate enough to live near the beach, takes a jog each evening. She takes a straight path between her house and the beach and back. The graph below shows her distance from home t minutes after 6:30 p.m. on one particular evening. Use the graph below to answer the questions.



1. How far from home was she at 6:40 p.m.?
2. At what time(s) was she 1 mile from home?
3. During what time interval(s) was she more than $\frac{1}{2}$ mile from home?
4. What was Holly doing roughly between 7:30 and 7:45 p.m.?
5. How far is the ocean from Holly's house? When did she reach the ocean?
6. Approximately how fast was she jogging between 6:30 and 6:50 p.m.?
7. What was Holly jogging fastest? How do you know?
8. How far did she jog altogether? When did she get home?
9. Did Holly jog at a constant speed on this particular trip? How do you know?