

**Reading Questions 2.4-2.6**

Name \_\_\_\_\_

Due Date: May 27, 2008

Bring this completed sheet with you to class on the due date to be handed in at the very beginning of the period.

1. Read Section 2.4. Suppose  $n = f(A) = A/250$ . Suppose  $A = g(n) = 250n$ .

How are  $f$  and  $g$  related? (Select **ALL** that are correct.)

inverses of each other

$g = f^{-1}$

$f = g^{-1}$

2. True or False:  $f^{-1}(x)$  means  $1/f(x)$ .

3. In Sec. 2.4, Example 3 the units of  $P^{-1}(2)$  would be...

birds

crickets

years

chirps/min

degrees F

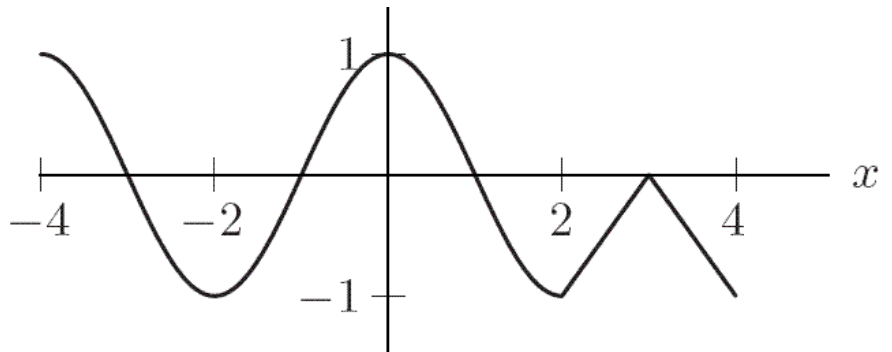
4. On the interval  $0 < x < 1$  which is true for the graph shown?

it is concave up

it is concave down

neither concave up, neither concave down

part concave up, part concave down



5. In the first paragraph of Section 2.6, what is traveling through the air?

a grapefruit

a high diver

a trapeze artist named the Great Santini

a baseball

6. Carefully read Section 2.6 Example 1 on page 89 and the paragraph below it.

Write the *factored form* of  $f(x) = x^2 - x - 6$ .  $f(x) =$  \_\_\_\_\_

7. The zeros of a quadratic function are easily determined if the equation can be written in factored form.

True

False

8. Look at Section 2.6 Example 3 on page 89. In trying to find zeros of the function by solving an equation *using algebra*, the solution found was  $x =$  \_\_\_\_\_.

Why is this solution **not** a real number?

\_\_\_\_\_  
Therefore what would we expect when we look at the *graph of a function* when we try to solve for zeros and get no real solutions?

9. In Section 2.6, Example 5, how many times is the high diver exactly 10 meters above the water?
- none
  - once
  - twice
  - three times
10. In Section 2.6, Example 5, find all the values of  $t$  for which  $h = f(t) = 10$ . Use any means you wish but explain your reasoning. ("I did it on my calculator" is not sufficient.)