

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

1. On page 20, the text writes a linear function as  $y = b + mx$ . Why is it given THIS way?  
 (Select one)

- a) Alphabetical order on the right side.
- b)  $b$  is the initial value and  $m$  tells how fast the line is climbing or falling.
- c) Just to screw you up.

2-6: Look at the table and graph for Section 1.4 Example 1 on page 27 for the velocity of the grapefruit as it is thrown in the air vs. time.

2. What is the value of the **average rate of change**? \_\_\_\_\_ ft/sec per second.

3. What is the value of the **vertical** intercept? \_\_\_\_\_

4. What is the value of the **horizontal** intercept? \_\_\_\_\_

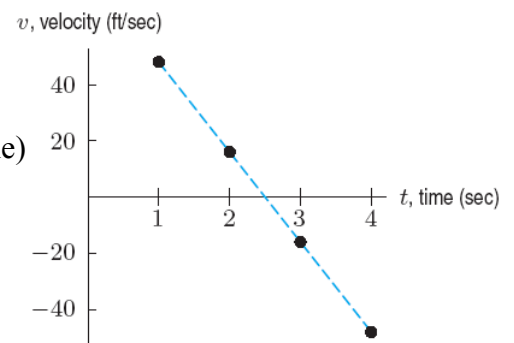
5. What is the meaning of the **vertical** intercept? (Select one)

- a) The initial height of the grapefruit when it was dropped.
- b) The price of grapefruit.
- c) Initial velocity of the grapefruit.
- d) How long it took to hit the ground.

6. What is the meaning of the **horizontal** intercept? (Select one)

- a) Velocity when it went splat.
- b) How long until the grapefruit stopped rising and started falling.
- c) Initial velocity of the grapefruit.
- d) How long it took to hit the ground.

$t$	$v(t)$
1	48
2	16
3	-16
4	-48



Reading Questions for Section 1.5

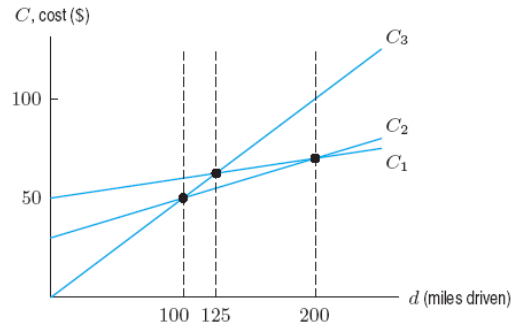
Name \_\_\_\_\_

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Questions 1-4 pertain to Example 3 of Section 1.5

1. Evaluate  $C_1(200)$ .  $C_1(200) =$  \_\_\_\_\_
2. Evaluate  $C_2(200)$ .  $C_2(200) =$  \_\_\_\_\_
3. In Figure 1.33 on page 38, (shown to the right) which intersection point does not influence our decision as to which agency is the cheapest? ( \_\_\_\_\_, \_\_\_\_\_ )
4. Produce the graphs of the three lines on your calculator and find an appropriate viewing window which shows all three intersection points similar to the figure.



What is one viewing window that would be appropriate?

\_\_\_\_\_ <  $x$  < \_\_\_\_\_  
 \_\_\_\_\_ <  $y$  < \_\_\_\_\_

More than one answer is correct.

5. Which is the equation of a vertical line? (SELECT ONE)

- a)  $x = 2$
- b)  $2x = y$
- c)  $y = 2$
- d) A vertical line has no equation

6. If two parallel lines have slopes  $m_1$  and  $m_2$ , what must be true about  $m_1$  and  $m_2$ ?

7. If two perpendicular lines have slopes  $m_1$  and  $m_2$ , what must be true about  $m_1$  and  $m_2$ ?



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1. Read Section 2.3. The graph of  $f(x) = |x|$  resembles which letter of the alphabet? \_\_\_\_\_
2. Suppose  $n = f(A) = A/250$ . Suppose  $A = g(n) = 250n$ .  
How are  $f$  and  $g$  related? (Select **ALL** that are correct.)
  - a)  $f$  and  $g$  are inverses of each other
  - b)  $g = f^{-1}$  All the crickets died.
  - c)  $f = g^{-1}$
  - d) There is no relationship.
3. True or False:  $f^{-1}(x)$  means  $1/f(x)$ .
  - a) True
  - b) False
4. In Sec. 2.4, Example 4 the units of  $P^{-1}(2)$  would be...
  - a) birds
  - b) crickets
  - c) years
  - d) chirps/min
  - e) degrees F

Reading Questions for Section 2.6

Name \_\_\_\_\_  
Due Date: \_\_\_\_\_

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1. In the first example, what is traveling through the air?
  - a) a grapefruit
  - b) a high diver
  - c) a trapeze artist named the Great Santini
  - d) a baseball
  
2. In this section you found the *zeros* of a function. What is one way you can find zeros?
  
  
3. Carefully read Example 1 on page 89 and the paragraph below it.  
Write the *factored form* of  $f(x) = x^2 - x - 6$ .  $f(x) =$  \_\_\_\_\_
  
  
4. Look at 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?  
\_\_\_\_\_
  
5. In Example 5, how many times is the high diver exactly 10 meters above the water?
  - a) none
  - b) once
  - c) twice
  - d) three times
  
6. In 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.)