

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

- Carefully read the first two sentences of Section 3.1 and complete the blanks:
Exponential functions change at a constant _____,
while linear functions change at a constant _____.
- Notice in Example 1 how the salary is computed from the previous year's salary.
Then give the salary for Year 5 (accurate to two decimal places). _____
- For the salary function in Example 1, give the **annual growth factor**: _____
- For the salary function in Example 1, give the **annual growth rate**: _____
- Circle True or False: The text reports the **growth factor per millenium** of the carbon-14 function from Example 3 as 0.886, even though it is decreasing.
 True
 False
- On page 110, suppose there was a row for $t = 4$ years in Table 3.4.
Would the salary be equivalent to $40,000(1.06)(1.06)(1.06)(1.06)$?
 Yes
 No
- The blue box on page 110 is VERY important. Read it carefully.
Which of these represents the **growth factor**? (Circle ONE)
 a
 b
 t
 $f(t)$
 r
- In Section 3.1, which of these functions are concave up? (Select **ALL** correct answers.)
 The salary function in Example 1
 The population of Mexico in Example 2
 The amount of carbon-14 remaining in Example 3
 The Yonkers fine in Example 8.
- In Example 8, suppose the fine started out at \$100 but **tripled** every day instead of *doubled*.
What would then be the formula in part (b)? _____