

## Modeling Review

Name \_\_\_\_\_

1. A rental car company charges \$30 plus \$.20 per mile to rent a car. The **cost, C (in dollars)** would depend on the **number of miles driven, m**, according to the rule  $C = 30 + .20m$

a. Use the function rule to complete this table of sample ( $n, C$ ) values:

#of miles (m)	0	1	2	3	4	5	10	20	50
Cost(C)									

- c. i) How much will the car rental cost if they don't drive the car at all?  
ii) How can this information be seen in the rule  $C = 30 + .20m$   
iii) How can this information be seen In **the table** of sample ( $m, C$ ) values?  
iv) How can this information be seen In **the graph**?
- d. i) How much does each mile driven cost?  
ii) How can this information be seen in the rule  $C = 30 + .20m$   
iii) How can this information be seen in the **table**?  
iv) How can this information be seen in the In the **graph**?
- e. Write a recursive rule for the situation described above.

2. The graph below shows pay plans offered by 3 banks to employees who collect credit card applications.

Atlantic Bank:  $A = 50 + 2n$     Boston Bank:  $B = 40 + 5n$     Consumer Bank:  $C = 50 + 3n$

Match each function rule with its graph by placing the letter A, B, or C next to the correct graph.

Explain what the numbers in the rule for Consumer Bank tell you about the relationship between daily pay and number of credit card applications collected.

