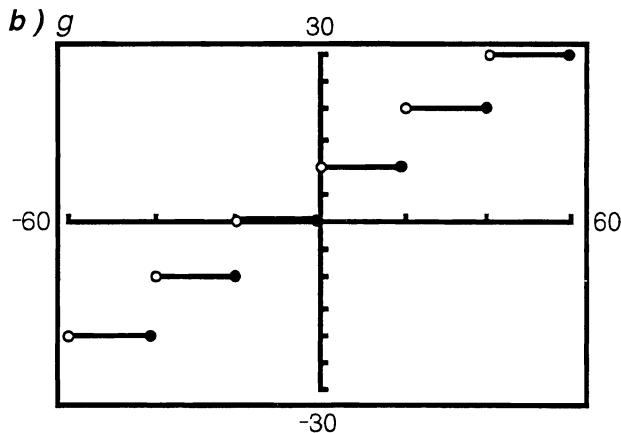
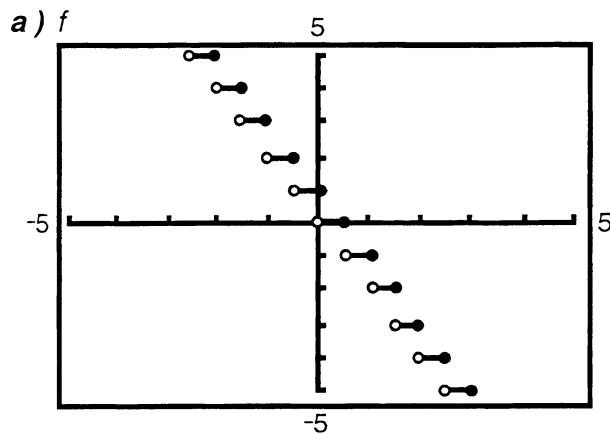


4. Find the rule for each of the following functions:



5. Find the range of each of the following functions:

a) $f(x) = -0.5[x - 2] + 5$

b) $g(x) = \left\lceil \frac{x}{10} \right\rceil + 25$

c) $h(x) = 5[x + 3] - 5$

6. Johnny rents his camper to Sylvia and Benny under the following terms: the first 500 km are free, but each additional 100 km they travel will cost \$20.

a) Find the rule for the greatest integer function that represents this arrangement.

b) How much must Sylvia and Benny pay Johnny if they travel 4174 km in his camper?

7. A store manager offers his employees a base commission of \$50, which he will increase by \$25 for every \$1000 worth of merchandise they sell over a one-month period.

a) Find the rule for the greatest integer function the manager uses to calculate the total commission he will pay each of his salesclerks.

b) Hector sells \$6257 worth of merchandise during the month. How much commission will he earn?

c) How much must an employee sell to earn a commission of \$350?

Name: _____

Group: _____ Date: _____

8. A telephone company offers a promotion on long-distance calls made on Sundays. It charges customers 25¢ for the first 5 min and 10¢ for each additional minute.

a) Find the rule for the greatest integer function that calculates the cost of a long-distance call made on a Sunday.

b) Last Sunday Joanne made a long-distance call that lasted 58 min 40 s. How much will this call cost before taxes?

9. To attract customers, Stephanie offers bonus coupons for every \$50 spent at her store (not including taxes). She calculates how many coupons to give each customer using the rule $T(A) = 2\left[\frac{A}{50}\right] + 1$, where A is the amount of the bill, in dollars.

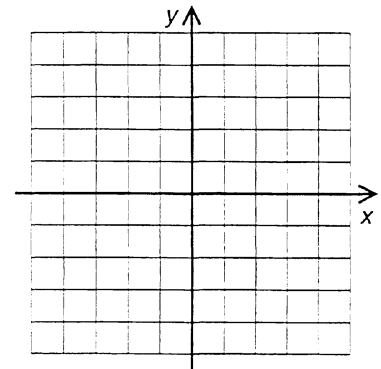
a) Graph the step function that represents this situation.

b) Janet buys a lawn mower for \$379.
How many coupons will she receive?

c) Robert and his daughter each buy an item worth \$80.
How many coupons will they receive if:

1) they ask for separate bills? _____

2) they ask for one bill? _____



10. A parking lot owner sets his rates using the rule $C(t) = \left[\frac{t}{30}\right] + 2$, where t is the number of minutes a car was parked in the lot and $C(t)$, the cost of parking. The maximum daily rate is \$10.

a) Graph this situation restricting the domain to $]0, 30[$.

b) What is the range of the function in this example?

c) Pete parks his car for a total of 1 h 45 min.
How much will he pay?

d) What is the minimum cost of parking in the lot?

