

MATH 230

Some Practice Exercises:

1. A bus transportation company charges a \$200 flat rate for a one-day trip of 500 miles or less plus \$25 for each person.
 - a) Introduce appropriate variables for the number of people taking a bus trip and the total cost for the trip, and then write an equation expressing the relationship between the number of people taking the trip and the cost of the trip.
 - b) Show how to use your equation to calculate the cost of the trip for 35 people.
 - c) Show how to use your equation to find the number of people taking the trip if it cost \$875.

2. Find the next two terms of each sequence and determine explicit functional equations for the following sequences.
 - a) $S_0 = 5$ and $S_n = S_{n-1} + 8$

 - b) $G_0 = 3$ and $G_n = 4G_{n-1}$

 - c) $F_0 = 4$ and $F_n = F_{n-1} + (2n)$

3. Write difference equations and explicit functional equations for each relationship expressed below.

n	0	1	2	3	4
S_n	6	11	20	33	50

n	0	1	2	3	4
G_n	80	40	20	10	5

n	0	1	2	3	4
A_n	6	10	14	18	22