Name: Date:

At the start of the school year, a school’s library had a total of 3,600 individual magazines that it had collected over time. Each month 22 new magazines are added to the collection.

1. Complete the table to show the number of magazines in the library each month.

|  |  |  |  |
| --- | --- | --- | --- |
| Months since start of school | Calculation | Pattern | Magazines in library |
| 0 |  | 3,600 + 22 (0) | 3,600 |
| 1 |  | c. | d. |
| 2 |  | e. | 3,644 |
| 3 |  | 3,600 + 22 ( g. ) | h. |

1. Define a variable and write an algebraic expression for the number of magazines.
2. What is your ROC?
3. The number of magazines after m months is? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. How many terms are in your answer?

Problem 2:

A family consisting of 2 adult and 3 children is planning an activity for next Saturday. Their options for the day are: an art museum, aquarium, concert, and baseball game.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Activity | Adult Ticket | Child Ticket | Pattern | Family’s cost |
| Art museum | $10.00 | $7.00 |  |  |
| Aquarium | $5.00 | $3.00 |  |  |
| Concert | $60.00 | $45.00 |  |  |
| Baseball game | $37.00 | $37.00 |  |  |

1. How many variables will you need to represent this problem?
2. Define them:
3. Write an algebraic expression for the number of magazines.
4. How many terms are in this expression?