Name _____ Period_____ Date_____

Constructing Functions from Words (page 1)

For each problem, create a table of values and graph. Determine the rate of change and initial value. Where applicable, interpret the rate of change and initial value in term of the situation. Write a function to represent the situation.

1. A car rental company charges $40 a day for a car as well as charging a one-time fee of $20 for the car's navigation system. Write an expression for the cost in dollars, ***c***, as a function of the number of days, ***d,*** the car was rented.

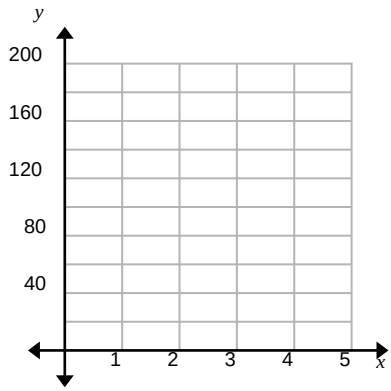
Rate of change:

Interpretation:

Initial value:

Interpretation:

Function:



2. A guitar instructor charges an initial fee plus $30 per hour for private lessons. Tash paid $165 for 5 hours of lessons. Assume the relationship is linear. Write an expression for the cost in dollars, ***c***, as a function of the number of hours, ***h***, for lessons.

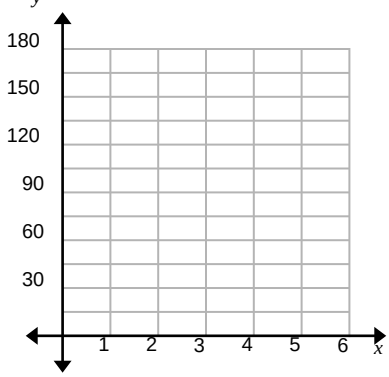
Rate of change:

Interpretation:

Initial value:

Interpretation:

Function:



Constructing Functions from Words (page 2)

3. Your 8th grade class had collected some canned goods before a food drive. To add to this, your pre-algebra class agreed to bring in 20 cans per day of the food drive. The total number of canned goods for Day 3 of the drive was 120 cans; on the last day (Day 5) there were 160 cans. Write an equation for the cans collected where ***C*** is the total number of cans and ***d*** is the number of days.

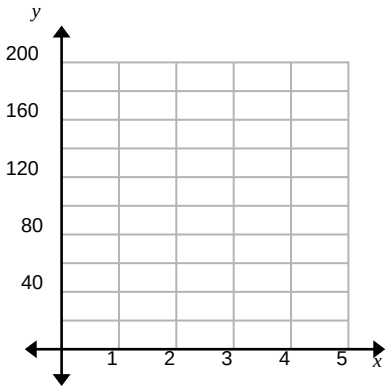
Rate of change:

Interpretation:

Initial value:

Interpretation:

Function:

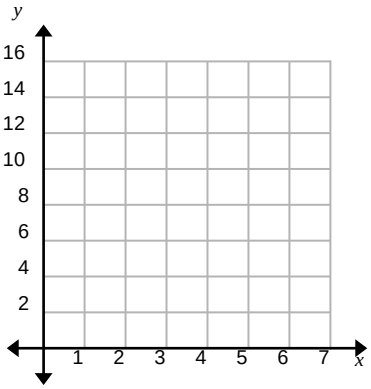


4. To rent an inflatable raft, a water park has two charges: a rental fee, plus a $1.50 per hour. The total cost to rent the raft for 4 hours is $11.00. Assume the relationship is linear.

Rate of change:

Interpretation:

Initial value:

Interpretation:

Function: