NAME _____ DATE _____ PERIOD _____

1-8 Study Guide and Intervention *(continued)*

Graphs and Functions

Draw Graphs You can represent the graph of a function using a **coordinate system**. Input and output values are represented on the graph using **ordered pairs** of the form (x, y). The x-value, called the ***x*-coordinate**, corresponds to the x-axis, and the y-value, or ***y*-coordinate** corresponds to the y-axis. Graphs can be used to represent many real-world situations.

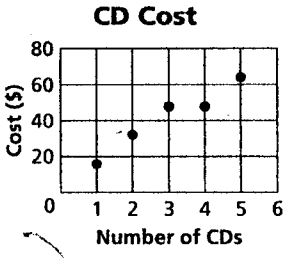
Example **A music store advertises that if you buy 3 CDs at the regular price of $16, then you will receive one CD of the same or lesser value free.**

a. Make a table showing the cost of buying 1 to 5 CDs.

Number of CDs	1	2	3	4	5
Total Cost ($)	16	32	48	48	64

b. Write the data as a set of ordered pairs.
(1, 16), (2, 32), (3, 48), (4, 48), (5, 64)

c. Draw a graph that shows the relationship between the number of CDs and the total cost.



LOOK PAGE 1 ⇒ WORK ON THIS PAGE PAGE 2 ⇒ ALL WORK ON LOOSELEAF! LOOK

Exercises

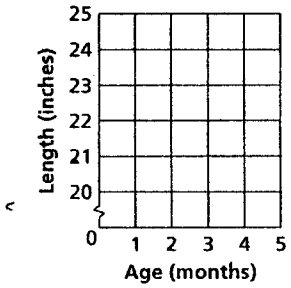
1. The table below represents the length of a baby versus its age in months.

Age (months)	0	1	2	3	4
Length (inches)	20	21	23	23	24

a. Identify the independent and dependent variables.

b. Write a set of ordered pairs representing the data in the table.

c. Draw a graph showing the relationship between age and inches.



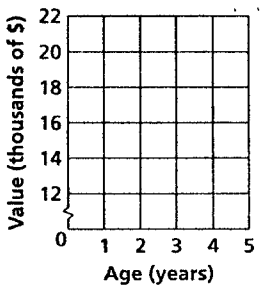
2. The table below represents the value of a car versus its age.

Age (years)	0	1	2	3	4
Value ($)	20,000	18,000	16,000	14,000	13,000

a. Identify the independent and dependent variables.

b. Write a set of ordered pairs representing the data in the table.

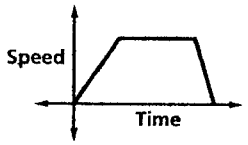
c. Draw a graph showing the relationship between age and value.



PAGE 1 of 2

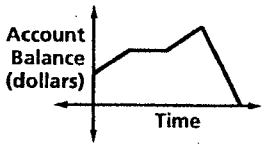
WS 1-8 NAME: _____ PER.: _____

(3) The graph represents the speed of a car as it travels to the grocery store. Identify the independent and dependent variable. Then describe what is happening in the graph.



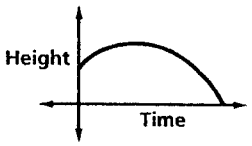
* USE LOOSELEAF

(4) The graph represents the balance of a savings account over time. Identify the independent and the dependent variable. Then describe what is happening in the graph.



* USE LOOSELEAF

(5) The graph represents the height of a baseball after it is hit. Identify the independent and the dependent variable. Then describe what is happening in the graph.



* USE LOOSELEAF

---

* USE LOOSELEAF FOR ALL OF THE PROBLEMS ON PG 2

EVALUATE:

(6) $\frac{1}{7} \cdot \frac{4}{5}$ (7) $\frac{2}{3} \div \frac{9}{8}$ (8) $\frac{7}{3} \div \frac{1}{5}$ (9) $6 \div \frac{4}{9}$

(10) $\dfrac{\frac{2}{3}}{\frac{8}{7}}$ (11) $\dfrac{\frac{7}{8}}{\frac{2}{9}}$ (12) $\dfrac{\frac{1}{2}}{2}$ (13) $\frac{7}{8} \div \frac{4}{8}$

(14) $|-8|$ (15) $|17|$ (16) $8+|-3|$ (17) $3-|2|$

SIMPLIFY:

(18) $2x + \frac{1}{3}(15x+9)$ (19) $4(\frac{2}{3}x)$ (20) IF $x = -2$

$4 + 3|x| + 12$