

RSCS

Name: _____

Class: _____

Date: _____

LINEAR FUNCTIONS HOMEWORK

Decide whether the equation is linear or nonlinear, and **explain** how you know.

1) $2a + 3b = 12$

2) $y = \sqrt{x} - 3$

3) $y = \frac{x}{2} + 6$

4) $y = \frac{4}{x}$

5) $a = \pi r^2$

Which table represents a relation that is **not** a function?

A

Input	Output
1	1
2	1
3	1
4	1

C

Input	Output
-1	-7
-2	11
-3	13
-4	105

B

Input	Output
2	0
4	1
6	2
8	0

D

Input	Output
3	0
5	2
7	1
3	-4

5. The table below shows the price for the number of copies made at a printing store.

Number of Copies	25	50	100	200
Cost	\$1.25	\$2.50	\$5.00	\$10.00

Which statement is true?

- A. The relation is a function with a constant change.
- B. The relation is a function, but the change is not constant.
- C. The domain is the number of copies and the range is the cost.
- D. The relation is not a function.

Graph the data in the table. Decide whether the graph is *linear* or *nonlinear*.

3.

x	0	1	2	3
y	4	8	12	16

4.

x	1	2	3	4
y	1	2	6	24

5.

x	6	5	4	3
y	21	15	10	6

6.

x	-1	0	1	2
y	-7	-3	1	5