

NAME _____

Sections 4.6-4.7

Date _____ Period _____

ALGEBRA

Writing Equations Mixed Review: Practice B

Directions: Determine if the following are arithmetic sequences, write "yes" or "no" on the line

1) 1, 5, 9, 13, 17, ...

2) 10, 12, 20, 22, 30, ...

3) 1, 2, 4, 7, 11, ...

4) 1, 3, 5, 7, 9, ...

5) 4, 6, 10, 14, 16, ...

6) 3, 10, 17, 24, 31, ...

7. In the lists below, circle that letter of the arithmetic sequence...

a) 1, 8, 13, 15, 16

b) 5, 9, 15, 20, 26

c) 3, 7, 13, 17, 23, 27

d) 2, 7, 12, 17, 22

Directions: Determine the rate of change

<u>X</u>	1	2	3	4
<u>Y</u>	10	20	30	40

<u>X</u>	5	8	11	14
<u>Y</u>	16	22	28	34

10) Tony sells pizzas at his pizza shop. His earnings depend on how many pies he can sell. The table below shows his earnings. How much does Tony make for each pizza he sells?

<u>Number of Pizzas (X)</u>	8	10	12	14	16
<u>Earning (Y)</u>	25	29	33	37	41

11. Catherine is monitoring her pay checks: look at the table

<u>Hours Worked (X)</u>	5	8	11	14	17
<u>Dollars Earned (Y)</u>	70	103	136	169	202

Which of these is accurate about the rate of change?

- a) Catherine's earnings increase 33 dollars every hour she works.
- b) Catherine's earnings increase 33 dollars every 2 hours she works.
- c) Catherine's earnings increase 33 dollars every 3 hours she works.
- d) Catherine's earnings increase 33 dollars every 4 hours she works.

12. The table below shows the cost (y) to watch (x) movies at the theatre.

<u>Number of Movies, X</u>	4	6	8	10
<u>Cost in Dollars, Y</u>	32	48	64	80

- a) What is the rate of change ($\frac{\Delta y}{\Delta x}$)? What does the rate of change mean in this context?

- b) What is the y-intercept (the time when $x = \underline{\hspace{1cm}}$)?

- c) What is the equation of the line represented by this table?

$$y = \underline{\hspace{1cm}}x + \underline{\hspace{1cm}}$$