

Name _____

Date: _____

Hour: _____

Algebra I HW 1.2

1.) Find the **first and second** differences for the sequence for 20, 27, 36, 47, 60.

Find the **next two terms** of each sequence.

2.) 18, 32, 46, 60, 74, _____, _____

3.) 33, 49, 65, 81, 97, _____, _____

4.) 20, 21, 26, 35, 48, _____, _____

5.) 30, 31, 35, 42, 52, _____, _____

6.) 100, 94, 88, 82, 76, _____, _____

7.) 44, 41, 38, 35, 32, _____, _____

8.) 12, 12, 18, 31, 53, 87, _____, _____

9.) 1, 7, 23, 50, 89, _____, _____

Apply the method of finding differences **until you get a constant**. Which difference produces a constant? What is it?

10.) 1, 2, 3, 4, 5,

11.) $1^2, 2^2, 3^2, 4^2, 5^2$

12.) $1^3, 2^3, 3^3, 4^3, 5^3$

13.) Complete the table for the perimeter of a square with the length of a side given in centimeters.

Side	1	2	3	4	5	6	7	8
Perimeter	4	8	12	16				

14.) If 675 people came to see a play and the admission was \$1.60, how much money was taken in?

15.) There are 162 students who volunteered to help 3 organizations. How many students went to each of the organizations if each got the same number?

16.) Find the next three terms in the following pattern.

43, 49, 55, 61, 67, _____, _____, _____. Is the difference a constant? Yes or No?