**Honors Algebra 2 ~ *Arithmetic Sequences Day 2 HW (3)* Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. What is a common difference?

2. What the explicit formula to find the nth term of an arithmetic sequence?

**For #3 & 4, name the first five terms of the arithmetic sequence described.**

3. $a\_{1}=4, d=3$ 4. $a\_{1}=7, d=5$

**For #5 & 6, name the next four terms of each arithmetic sequence.**

5.  6. 

**For #7-8, find the indicated term in each arithmetic sequence:**

7.  for 10, 7, 4, … 8.  for 8, 3, -2, …

**For #9-12, find the missing terms in each arithmetic sequence:**

9. 55, , , ,115 10. , -6, , ,15,\_\_\_\_

11. -8, , ,3 12. 16, , , ,0

**For #13-14, write an explicit & recursive formula for the nth term of each arithmetic sequence.**

13. 2, -1, -4, -7,… 14. 22, 32, 42,…

**For #15-17, complete the statement for each arithmetic sequence.**

15. 124 is the ? term of -2, 5, 12,…

16. 142 is the ? term of -3, 2, 7, …

17. -28 is the ? term of 7, 2, -3, …

**For #18 & 19 find the first term (**$a\_{1})$ **for the following arithmetic sequences.**

18. $a\_{12}=27, d=-5$ 19. $a\_{31}=-11, d=2$