

## DO NOW: Some Review Problems

1) Write the first 6 terms of the sequence defined by the explicit formula:  $t_n = -2n + 3$

2) Write the first 6 terms of the sequence defined by the recursive formula:  $t_1 = 4$  and  $t_n = 3(t_{n-1}) + 5$

3) Evaluate:

$$\sum_{k=1}^4 5k$$

4) Write the explicit formula for the sequence: 3, 8, 13, 18, 23 . . .

**HW Questions??**  
**p. 704 #33, 34, 40, 41, 57, 60**

**Review:****Objective: Write and use Explicit and Recursive Formulas for Arithmetic Sequences**

Find the 10<sup>th</sup> term of the arithmetic sequence in which

$$t_3 = -5 \text{ and } t_6 = 16.$$

1) Find the common difference,  $d$

-5

16

2) Find the first term,  $t_1$ .

Use  $d = \underline{\hspace{2cm}}$ , the explicit formula, and either  $t_3 = -5$  or  $t_6 = 16$

3) Use the explicit formula to find the  $t_3$ .



## Arithmetic Sequence Practice @ hotmath.com

## Problem: 1

Determine whether the sequence is arithmetic. Give reason for your judgment.

12, 10, 8, 6, 4, ...

## Problem: 3

Determine the next four terms in the arithmetic sequence 9 19, 29, 39, ....

## Problem: 9

If  $a_1 = -5$ ,  $d = -8$ , find a formula for the  $n$ th term of the sequence.

## Problem: 11

If  $a_1 = 4$ ,  $a_3 = 13$ , find a formula for the  $n$ th term of the sequence.

## Problem: 13

Find a formula for the  $n$ th term of the arithmetic sequence:  $-2, -8, -14, -20, \dots$

## Problem: 17

Determine the recursive and explicit formulas for the sequence  $-18, -8, 2, 12, \dots$

## Problem: 19

Calculate the 30<sup>th</sup> term of the sequence  $-4, -2.6, -1.2, 0.2, \dots$

## Problem: 41

Find the number of terms, the first term and the last term for

$$\sum_{n=1}^6 (3n - 5)$$

Find the sum.

HW p. 704 # 35, 43, 51, 52, 58, 59