

**Module 12 Classwork** Name: \_\_\_\_\_ Date: \_\_\_\_\_ Pd: \_\_\_\_\_

1. Find the explicit formula given  $a_1 = 12$  and  $d = 7$ .

2. Find  $a_n$  for  $-5, 7, 19, \dots$

3. Write the explicit and recursive formulas for  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots$

4. Given the two terms in the arithmetic sequence, find the explicit formula.

$$a_{12} = 48 \text{ and } a_{41} = 193$$

5. Find  $a_{120}$  for  $-15, -22, -29, \dots$

6. Evaluate  $\sum_{k=1}^4 3^k - 1$

7. Write the following in Sigma Notation:  $-5 + 14 + 33 + 52, \dots$

8. Write the following in Sigma Notation:  $\frac{3}{4} + \frac{5}{9} + \frac{1}{2} + \frac{9}{19}, \dots$