

## Recursive Formula

Date \_\_\_\_\_ Period \_\_\_\_\_

**For each arithmetic sequence, find the common difference. Use the recursive formula to find the next three terms in the sequence. Show your work.**

1)  $-14.9, -13, -11.1, -9.2, \dots$

2)  $0, -30, -60, -90, \dots$

3)  $-23, -33, -43, -53, \dots$

4)  $21, 31, 41, 51, \dots$

5)  $24, 19, 14, 9, \dots$

6)  $-\frac{4}{7}, -\frac{29}{14}, -\frac{25}{7}, -\frac{71}{14}, \dots$

**For each geometric sequence, find the common ratio. Use the recursive formula to find the next three terms in the sequence. Show your work.**

7) 2, 12, 72, 432, ...

8)  $-\frac{9}{5}, \frac{9}{10}, -\frac{9}{20}, \frac{9}{40}, \dots$

9)  $\frac{1}{5}, \frac{1}{10}, \frac{1}{20}, \frac{1}{40}, \dots$

10) 2, -6, 18, -54, ...

11) 0.5, 1, 2, 4, ...