Name: _____ Class: _____ Date: _____

Algebra 2 CP Sections 11.1, 11.2, & 11.3 Quiz Review Worksheet

Tell whether the sequence is *arithmetic*, *geometric*, or *neither*. If arithmetic, state the common difference. If geometric, state the common ratio.

1. -5, -3, -1, 1, ...

2. -4, -2, 2, 4, ...

3. 12, 6, 3, $\frac{3}{2}$, ...

4. $\frac{1}{3}$, 1, 3, 9, ...

Write the first six terms of the sequence.

5. $a_n = n^2 + 1$

6. $a_n = 3n - 5$

Write the next term of the sequence, and then write a rule for the nth term.

7. 4, 9, 14, 19, ...

8. 2, 10, 50, 250, ...

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9. -9, -10, -11, -12, ...

10. $5, -\frac{5}{2}, \frac{5}{4}, -\frac{5}{8}, \ldots$

13. $7 + -14 + 28 + -56 + \ldots$

14. $3 + 7 + 11 + 15 + \ldots$ for $n = 30$

Find the sum of the series.

11. $\sum_{i=2}^{5} \frac{1}{2} i^2$

12. $\sum_{i=1}^{6} (i - 10)$