Unit 8 Review Name _____

Algebra 2B [Kuta Software]

Determine if the sequence is arithmetic. If it is, find the common difference.

1) 35, 32, 29, 26, ...

3) −34, −64, −94, −124, ...

5) −7, −9, −11, −13, ...

Find the first five terms. Then find the indicated term.

7) $a_n = -11 + 7n$
Find a_{34}

9) $a_n = -7.1 - 2.1n$
Find a_{27}

Given the arithmetic sequence, find the first five terms. Then find the equation of the sequence.

11) $a_1 = 28,\ d = 10$

13) $a_1 = -34,\ d = -10$

15) $a_{38} = -53.2,\ d = -1.1$

17) $a_{37} = 249,\ d = 8$

Evaluate the related series of each sequence.

1) 13, 15, 17, 19, 21, 23

3) 22, 28, 34, 40, 46

Evaluate each arithmetic series described.

5) $\sum_{k=1}^{35}(5k-2)$

10) $\sum_{n=1}^{45}(3n-9)$

11) $a_1 = 42,\ a_n = 146,\ n = 14$

13) $a_1 = 2,\ a_n = 122,\ n = 13$

15) $20 + 27 + 34 + 41\ldots,\ n = 16$

17) $7 + 9 + 11 + 13\ldots,\ n = 10$

Determine the number of terms *n* in each arithmetic series.

19) $a_1 = 19,\ a_n = 96,\ S_n = 690$

25) $(-2) + (-12) + (-22) + (-32)\ldots,\ S_n = -224$