Handout: Arithmetic Shmarithmetic- Answers

1. List the first 4 terms of the sequence given by
$$\{a_n\} = 3(a_{n-1}) - 1$$
 whose first term is 5.

2. List the first 5 terms of the arithmetic sequence given by
$$\{a_n\} = 5n - 4$$
.

3. Find the explicit rule for the sequence
$$5, 7, 9, 11, \dots$$

$$\{a_n\} = 2n + 3$$

4. Find the explicit rule for the sequence
$$6, 13, 20, 27...$$

$$\{a_n\} = 7n - 1$$

5. Find the recursive rule for the sequence
$$4, 11, 32, 95...$$

$$\{a_n\} = 3(a_{n-1}) - 1$$

6. Given the arithmetic sequence
$$\{a_n\} = (a_{n-1}) + \frac{1}{2}$$
 with $a_1 = 10$, find the 99th term.

59

7. Determine how many terms exist in the sequence
$$1, 3, 5, ..., 75, 77$$
.

39

8. Find the 7th partial sum of the sequence
$$\{a_n\} = 6 - 2n$$
.

-14

9. Find the sum of
$$-30, -26, -22, ..., 2, 6$$
.

-120

10. Find the third partial sum of the geometric series given by:
$$\sum_{n=1}^{\infty} 6 \left(3 \right)^{n-1}.$$

78

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