Sequences and Arithmetic Sequences - Worksheet

NAME: DATE:

1. Find the first five terms of the sequence $\{a_n\}$ where $a_n = (-1)^n n(n-1)$.

2. Find the sum

$$\sum_{i=1}^{5} (i^2 - 1).$$

3. Show that the sequence $\log 2^n$ is arithmetic and find its common difference.

4. Find the 9th partial sum of the arithmetic sequence $\{a_n\}$ if $a_1 = 1$ and d = -4.