Mini Math
October 3

1. Determine each of the following sums using the 'midpoint' technique

   (a) $4 + 11 + 18 + 25 + \cdots + 74$

   Solution: 429

   (b) $11 + 13 + 15 + \cdots + 51$

   Solution: 651

2. An arithmetic series has $a_{12} = \frac{55}{2}$, and $a_{33} = 38$. Determine S_{40}.

   Solution: 35.5

3. Write the general formula for a_n, the n^{th} term for arithmetic sequence with common difference d.

   Solution:
   $$a_n = a_1 + d(n-1)$$

4. Write the general formula for S_n, the n^{th} partial sum for arithmetic series with common difference d.

   Solution:
   $$S_n = \frac{n}{2}\left(2a_1 + d(n-1)\right)$$