1. Compute first five term of the given sequence:
   a. $x_i = (-1)^i$
   b. $y_i = \frac{3i}{5^{i+2}}$
   c. $d_m = 1 + \left(\frac{1}{2}\right)^m$ for all integers $m \geq 0$.
   d. $e_n = \lfloor \frac{n}{2} \rfloor \cdot 2$, for all integers $n \geq 0$.

2. Find explicit formula for the following sequence:
   a. 0, 1, -2, 3, -4, 5, …
   b. ¼ , 2/9 , 3/16 , 4/25 , 5/36, …
   c. 1/5 , 2/8, 3/13, 4/20, 5/29, ….
   d. ½, 2/3, ¾, 4/5, 5/6, ….
3. Evaluate the following summation
   a. $\sum_{i=1}^{4}(2i-3) + \sum_{j=1}^{5}(4-5j)$
   b. $\sum_{k=0}^{3}(3k^2+6)$
   c. $\sum_{k=0}^{5} k(k-1)$
   d. $\prod_{i=2}^{5} \frac{i(i+2)}{(i-1)\cdot(i+1)}$
4.