**Sections 8.2 and 8.3**

**Activity 1**

**Write the first six terms of each of the following sequences:**

1. **I0 = 2, Ik = Ik-1 – 2 for k>0**
2. **I0 = 5, Ik = 3\*Ik-1 for k>0**
3. **I0 = 1, Ik = 2\*Ik-1 + 1 for k>0**
4. **I0 = 1, Ik = k\*Ik-1  for k>0**

**Activity 2**

* **A colony of bats is counted every 2 months.**
* **The first four counts are 1200, 1800, 2700, 4050.**
* **Assuming this growth rate continues, write a recurrence relation for this data.**
* **What will the 10th count be?**

**Activity 3**

**Write the first seven terms of each of the following sequences:**

**I0 = 5, I1 = 11,**

**Ik = 5Ik-1 – 6Ik-2 for k>1**

**I0 = 4, I1 = -2,**

**Ik = - Ik-1  + 2Ik-2 for k>1**

**Activity 4**

**Evaluate the summations expressed below**









**Activity 5**

**Rewrite each of the following separating off the final term.**







**Activity 6**

**Write each of the following in summation notation.**



