1. Sidenote
   1. Can use power() from math.h library but cast as int if needed.
2. Big-Oh theoretical runtimes
   1. Summation identities
   2. **Arithmetic sequence**: sequence of numbers with a common difference *d*.
3. Analyzing Code Segments
   1. Constant *n*
   2. Consecutive loops
      1. for(i = 0; i < n; i++) {
         1. //O(1)
         2. }
      2. //O(n) = even if there are multiple non-nested loops
   3. Nested loop
      1. for(i = 0; i < n; i++) {
         1. for (j = 0; j < n; j++) {
            1. //O(1)
         2. }
      2. }
      3. //O(*n*2)
   4. Nested loop (grid with *r* and *c*)
      1. for(i = 0; i < r; i++) {
         1. for (j = 0; j < c; j++) {
            1. //O(1)
         2. }
      2. }
      3. //O(*rc*)
   5. Ex
      1. for(i = 0; i < n; i++) {
         1. for(j = 0; j <= i; j++) {
            1. //O(i)
         2. }
      2. }
      3. //Runtime =
         1. //n2 term is dominant
         2. //1/2 is a constant
      4. //O(*n*2)