Homework: pg 459 #1ac, 3ace, 4, 5, 6ace, 7, 9, 11, (15)

**Geometric Series**

**The Homework Proposal**

“Suppose” we make an offer to pay you to complete your homework. On the first day, we’ll pay you 5¢. On the second day, we’ll pay you 10¢. On the third day, we’ll pay you 20¢, then 40¢, etc… (following a geometric sequence).

Given this proposition…

a) How much will we pay you on the 20th day?

b) How much would we pay you *total* after 20 days?

Create a formula that can be used to determine the sum of the first n terms in a geometric series.

**Example 1**

Use the previously derived formula to determine the sum of the following series:

2 + 8 + 32 + … + 524288

Create a second formula to determine the sum of a geometric series.

**Example 2**

Use the new formula to again determine the sum of the series:

2 + 8 + 32 + … + 524288