**Grossmont College** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MA180 Homework (Introduction)** Class section no. : \_\_\_\_\_\_\_\_\_\_\_\_\_

Each HW packet is worth 5 points. You will be graded upon your percentage of completion (not accuracy), but you have to show clear work to get full credit. The answers are either in the textbook or on instructor’s webpage.

1. Compute the limit $\lim\_{n\to \infty }(\frac{7}{n+1})$

2. Compute the limit $\lim\_{n\to \infty }(\frac{2n-1}{n})$

3. Compute the limit $\lim\_{n\to \infty }(\frac{4n^{2}+27}{3n^{2}+8n-6})$

4. Use the sum of *n*-th powers formula to compute

 $1^{2}+2^{2}+3^{2}+\cdots +23^{2}$

5. Use the sum of *n*-th powers formula to compute

 $1^{3}+2^{3}+3^{3}+\cdots +16^{3}$