

# Math 234 Preview Exercises

Section 5.1

NAME \_\_\_\_\_

Read Section 5.1 in the textbook and answer the following questions. *Hand in this worksheet at the next class.*

1. When talking about mathematical sequences, what is the difference between a **term** and an **index**?
2. If a sequence is defined by  $c_j = (-1)^j$  for all integers  $j \geq 0$ , then what are the first six terms of this sequence?
3. What is the meaning of  $\sum_{k=m}^n a_k$ ?
4. What is the meaning of  $\prod_{k=m}^n a_k$ ?
5. What is the **factorial** of  $n$ ?
6. What is the meaning of  $\binom{n}{k}$ ?