

## Math 2260 HW #10

Due 10:10 AM Friday, March 23

**Reading:** Hass §9.1–9.2

**Problems:** Do the assignment “HW10” on WebWork. In addition, write up solutions to the following problems and hand in your solutions in class on Friday.

1. Consider the sequence

$$\left( \frac{5}{1}, \frac{8}{2}, \frac{11}{6}, \frac{14}{24}, \frac{17}{120}, \frac{20}{720}, \dots \right).$$

What is the  $n$ th term in this sequence?

2. Consider the sequence  $(a_n)_{n=1}^{\infty}$  where

$$a_n = \frac{\ln(n)}{\ln(2n)}.$$

Does the sequence converge or diverge? Find the limit if it converges.