

Math 103, Fall 2014
Week 12

After Class Homework
Due Monday, November 24

1. Estimate the area under the curve $y = x^3$ between 1 and 4 using the left endpoint rule with 5 rectangles.
2. Estimate the area under the curve $y = x^3$ between 1 and 4 using the right endpoint rule with 5 rectangles.
3. Estimate the area under the curve $\cos x$ between 0 and $\pi/2$ using the left endpoint rule with 4 rectangles.
4. Find the area under the curve $x - 1$ between 1 and 4 using the method from class (estimate the area using n rectangles and take the limit as $n \rightarrow \infty$).
5. Find the area under the curve $\frac{x^2}{5} - \frac{x}{2} + 1$ between 1 and 4 using the method from class (estimate the area using N rectangles and take the limit as $N \rightarrow \infty$).
6. Find the area under the curve $\frac{x^2}{2} + x$ between 0 and 2 using the method from class (estimate the area using n rectangles and take the limit as $n \rightarrow \infty$).