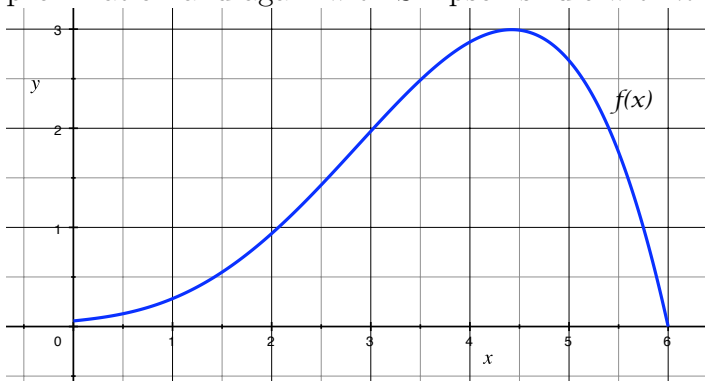


Math 125 Worksheet #9
August 7, 2007

1. Approximate the area under the curve of $f(x)$ as shown below using trapezoidal approximation and again with Simpson's rule with $n = 6$.



2. Evaluate the following limits.

(a) $\lim_{t \rightarrow 0} \frac{1 - \cos^2 t}{2t^2}$

(c) $\lim_{x \rightarrow \infty} x \ln \left(\frac{1}{x} \right)$

(b) $\lim_{x \rightarrow \infty} \frac{\ln \left(\frac{1}{x} \right)}{x}$

(d) $\lim_{x \rightarrow 0^+} \left(\frac{1}{\sin x} \right)^x$