Let $I = \int_0^1 x \sin(x^2)\, dx$

1. Use Maple to graph $y = x \sin(x^2)$ for $0 \leq x \leq 1$

2. Use Maple to draw L_{10} and R_{10}.
   (Use the leftbox() and rightbox() commands)

3. Use Maple to calculate L_{10} and R_{10}.
   (Use the leftsum() and rightsum() commands)

   How does I compare to L_{10} and R_{10}?

4. Find the exact value of I by using u-substitution.
   Does this agree with your previous answers?