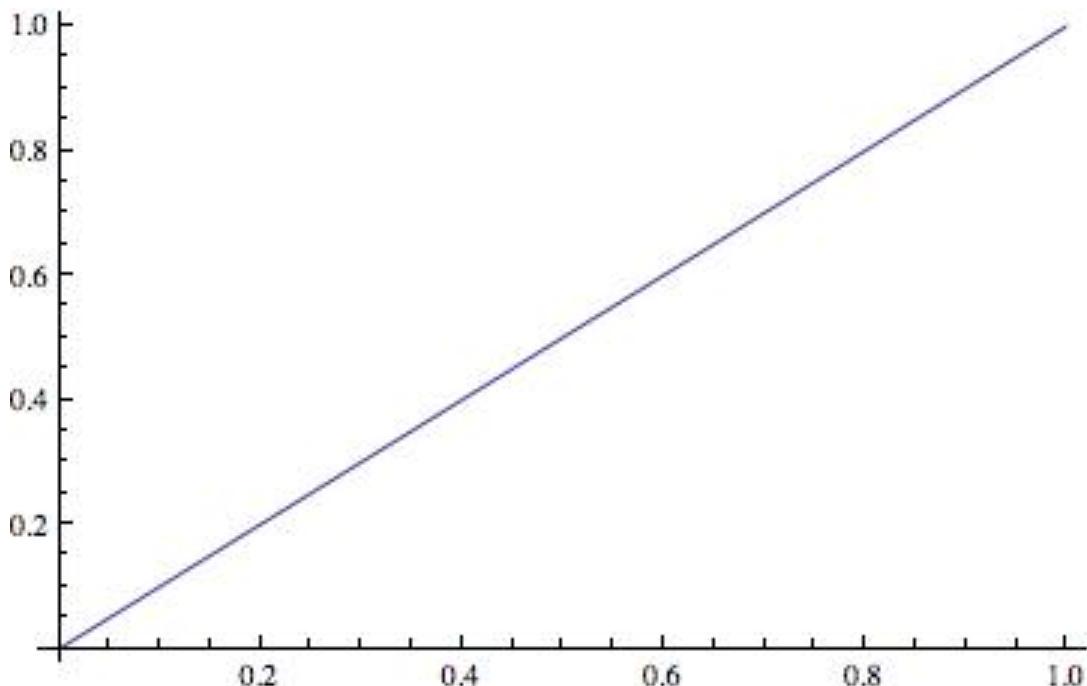
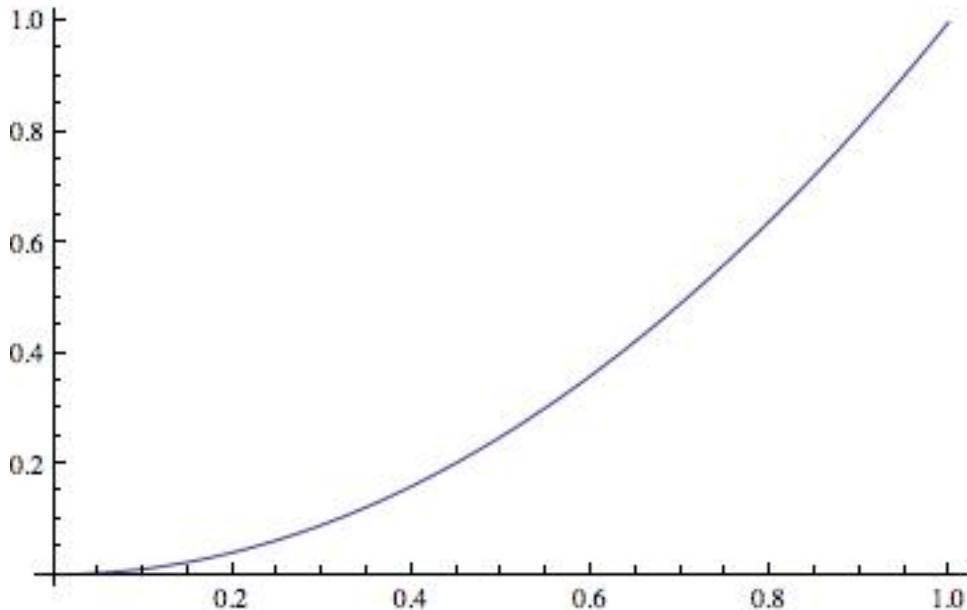


**MAT227:**  
**Riemann Integral for the area between the**  
**function  $f(x)=x$**   
**and the x-axis**



1. Draw the RRR approximation for 5 subintervals.
2. Write the RRR summation form that approximates the Riemann Integral with n subintervals: what is
  - a. The partition, and
  - b. The list of centers?
3. Compute the limit of this sum as n goes to infinity.
4. Compute the area graphically. How did we do?
5. What would be the average value of the function on the interval [0,1]?

Same thing for the function  $f(x)=x^2$ :



1. Draw the RRR approximation for 5 subintervals.
2. Write the RRR summation form that approximates the Riemann Integral with  $n$  subintervals: what is
  - a. The partition, and
  - b. The list of centers?
3. Compute the limit of this sum as  $n$  goes to infinity (see p. 298 for help!).
4. Compute the area graphically. How did we do?
5. What would be the average value of the function on the interval  $[0,1]$ ?