

## Math 212

\* Wednesday quiz: see our webpage

\* Return HW & discuss

- 6.2.3  $f(x) = k \quad \forall x \in B \Rightarrow \int f = k \text{vol}(B)$

- $f(x) = \sqrt{x}$  is uniformly cts. on  $[0, \infty)$ .

- $\sup(X+Y) = \sup X + \sup Y$

Template for a proof: Prop.  $s = \sup S$ .

Pf/ Let  $a \in S$ . Then ~~math occurs here~~. So  $s \geq a$ . Therefore,  
 $s$  is an upper bound for  $S$ . Next, suppose  $t \geq a$  for all  $a \in S$ . Then  
~~math again~~. So  $t \geq s$ . Therefore,  $s$  is the least upper  
bound for  $S$ .  $\square$