

Inequalities  
PreCalc RH

3. Find all ordered pairs of integers  $(x,y)$  that satisfy  $x^2 + y^2 \leq 25$   
(45%) and  $y = x - 3$ .
19. Find all real values of  $x$  that satisfy  $|x| + 3 - |x + 3| = 6$ .  
(36%)
5. In the cube determined by  $1 \leq x \leq 2$ ,  $1 \leq y \leq 2$ ,  $1 \leq z \leq 2$ ,  
determine the maximum numerical value of the function  $f$  defined  
by  $f(x,y,z) = xyz - 3yz + 2x - 5$ .
26. In a rectangular coordinate system, find the area of the region  
bounded by the graph of  $|x| + |y - 1| = 2$ .