

① Use a tangent plane approximation [HW22]  
to estimate  $f(5.01, 4.49)$  from  
 $f(5, 4.5)$ ,  $f_x(5, 4.5)$ , and  $f_y(5, 4.5)$   
where  $f(x, y) = \frac{x+y}{x-y}$ .

② Use a tangent plane approximation to  
estimate  $\frac{\sqrt[3]{1015}}{\sqrt{1006}}$  without a calculator.  
(Use  $f(x, y) = x^{1/3} y^{-1/3}$ .)