

Today's Topic: Demand Functions, Quasilinear Utility Functions

CP2.  $u = \ln x_1 + 2x_2$   
 $= f(x_1) + ax_2$

quasilinear and  
well-behaved  $\rightarrow$  tangency method!

- ①  $MRS = \frac{1}{2x_1}$   $\leftarrow$  quasilinear, so linear  $x$  gone  
②  $\frac{1}{2x_1} = p_1/p_2 \rightarrow x_1^* = \frac{p_2}{2p_1}$   $\leftarrow$   
 $p_1 = p_2 = 1 \rightarrow x_1^* = 1/2$   
③  $p_1 x_1 + p_2 x_2 = m \rightarrow x_2^* = m - 1/2$

