

$$3. A \begin{cases} MRS_{xy} = \frac{P_x}{P_y} \\ P_x X + P_y Y = M \end{cases} \rightarrow \frac{Y}{X} = \frac{1}{2} \quad \begin{matrix} X=30 & Y=25 \\ 10X+20Y=100 & U=1250 \end{matrix}$$

$$B \begin{cases} MRS_{xy} = \frac{(P_x+t)}{P_y} \\ (P_x+t)X + P_y Y = M \end{cases} \frac{Y}{X} = 1 \quad \begin{matrix} X=25 & Y=25 \\ 20X+20Y=1000 & U_1=625 < U_0 \end{matrix}$$

C Government Tax = $10 \times 25 = 250$

$$D \begin{cases} MRS_{xy} = \frac{P_x}{P_y} \\ P_x X + P_y Y = M - T \end{cases} \rightarrow \frac{Y}{X} = \frac{1}{2} \quad \begin{matrix} X=37.5 & Y=18.75 \\ 10X+20Y=750 & V_2=705.125 < U_0 \end{matrix}$$

E '1' $X_1 < X_2$ 所以該稅較能抑制消費

F 但 $V_2 > V_1$ 故小李可接受定額稅

$$G \begin{cases} MRS_{xy} = \frac{(P_x+t)}{P_y} \\ (P_x+t)X + P_y Y = M + \psi \end{cases} \begin{cases} \frac{Y}{X} = 1 \\ 10X+20Y=1250 \end{cases} \quad \begin{matrix} X=31.25 & Y=30 \\ V_1=976.5625 \end{matrix}$$