Homework 4

Question 1

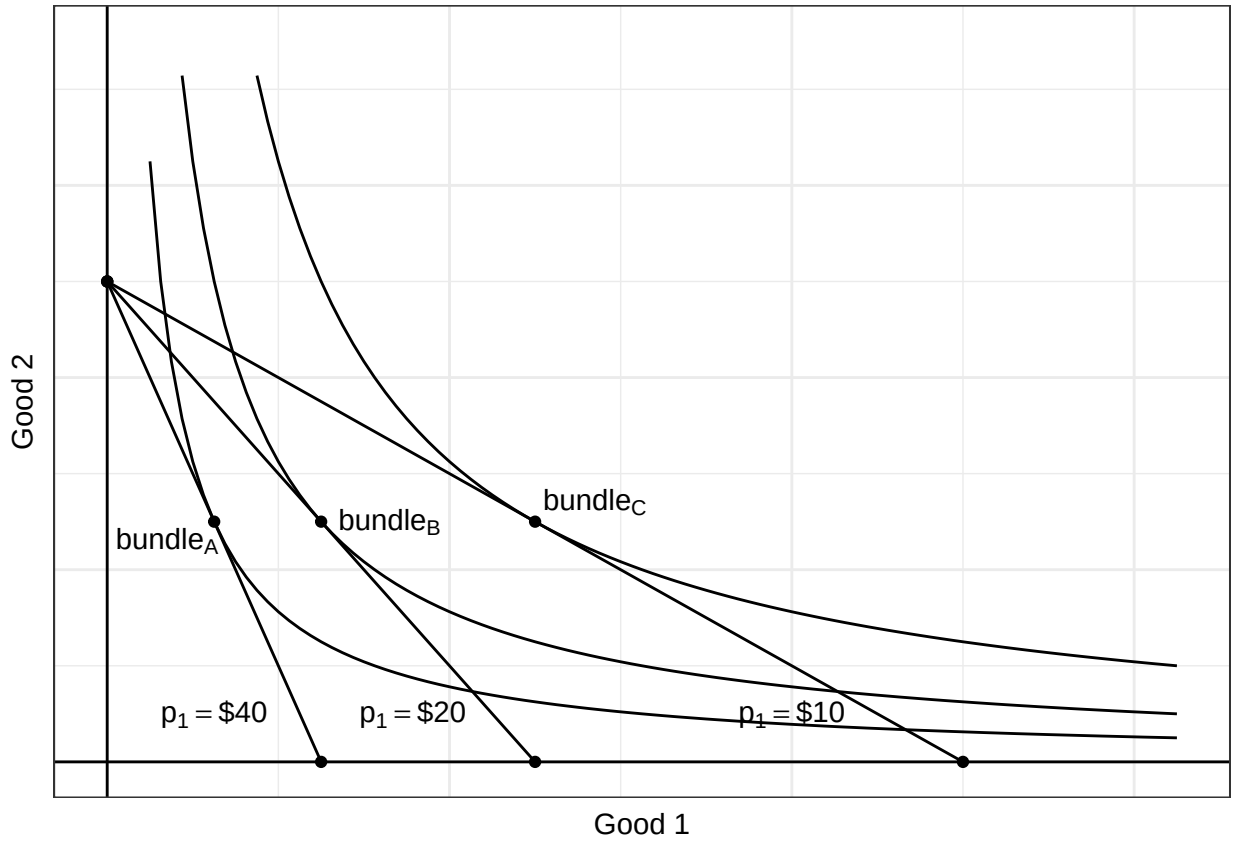

Figure 1: consumer optimization for two goods.

$$bundle_A = \begin{bmatrix} 12.5 \\ 25 \end{bmatrix}$$

$$bundle_B = \begin{bmatrix} 25 \\ 25 \end{bmatrix}$$

$$bundle_C = \begin{bmatrix} 50 \\ 25 \end{bmatrix}$$

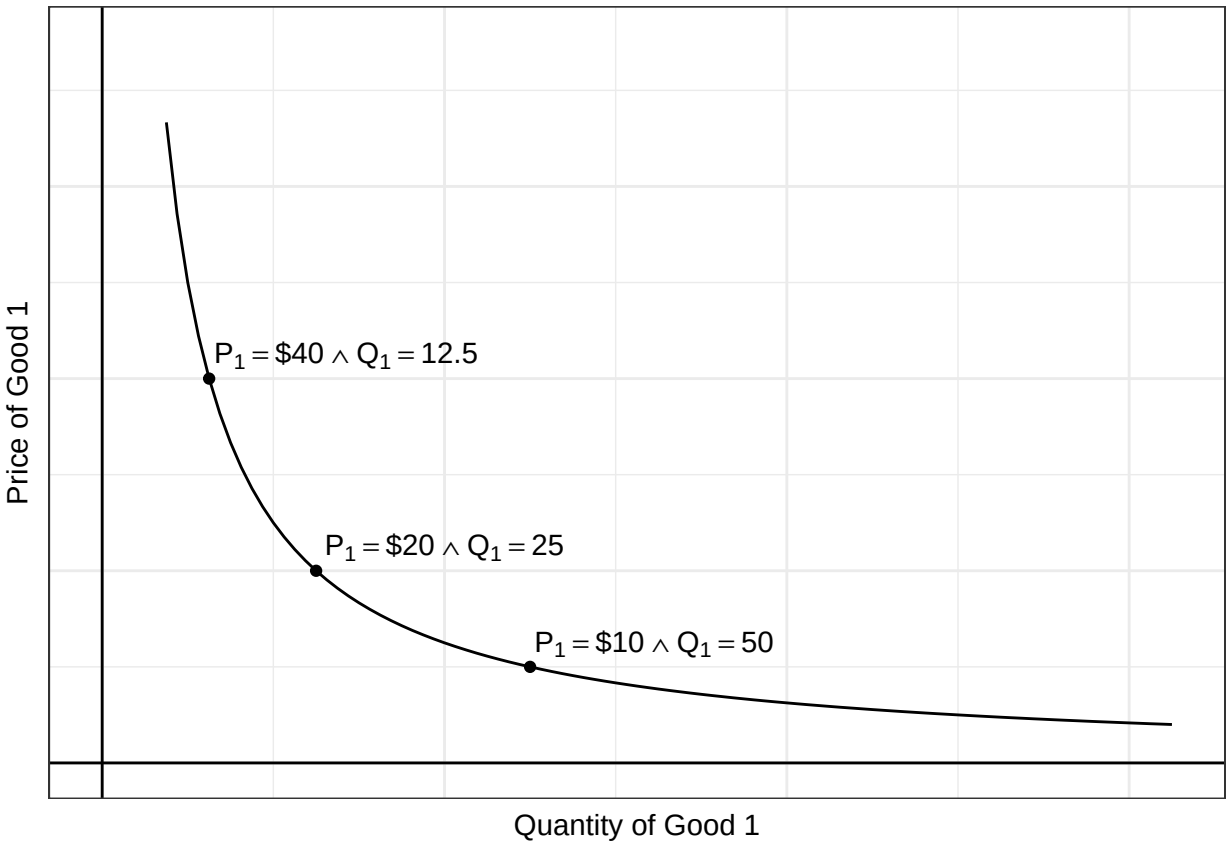

Figure 2: moving along demand curve.

Question 2

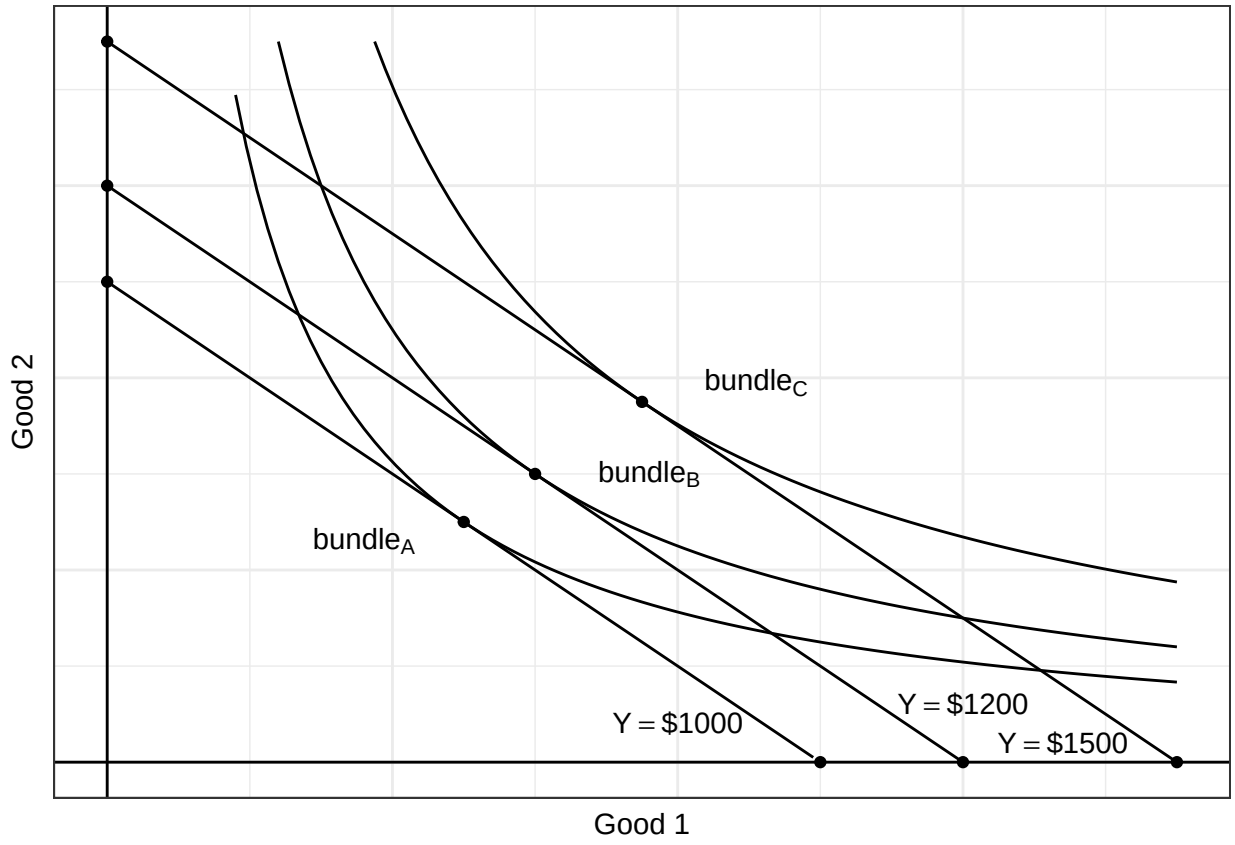

Figure 3: consumer optimization for two goods.

$$bundle_A = \begin{bmatrix} 25 \\ 25 \end{bmatrix}$$

$$bundle_B = \begin{bmatrix} 30 \\ 30 \end{bmatrix}$$

$$bundle_C = \begin{bmatrix} 37.5 \\ 37.5 \end{bmatrix}$$

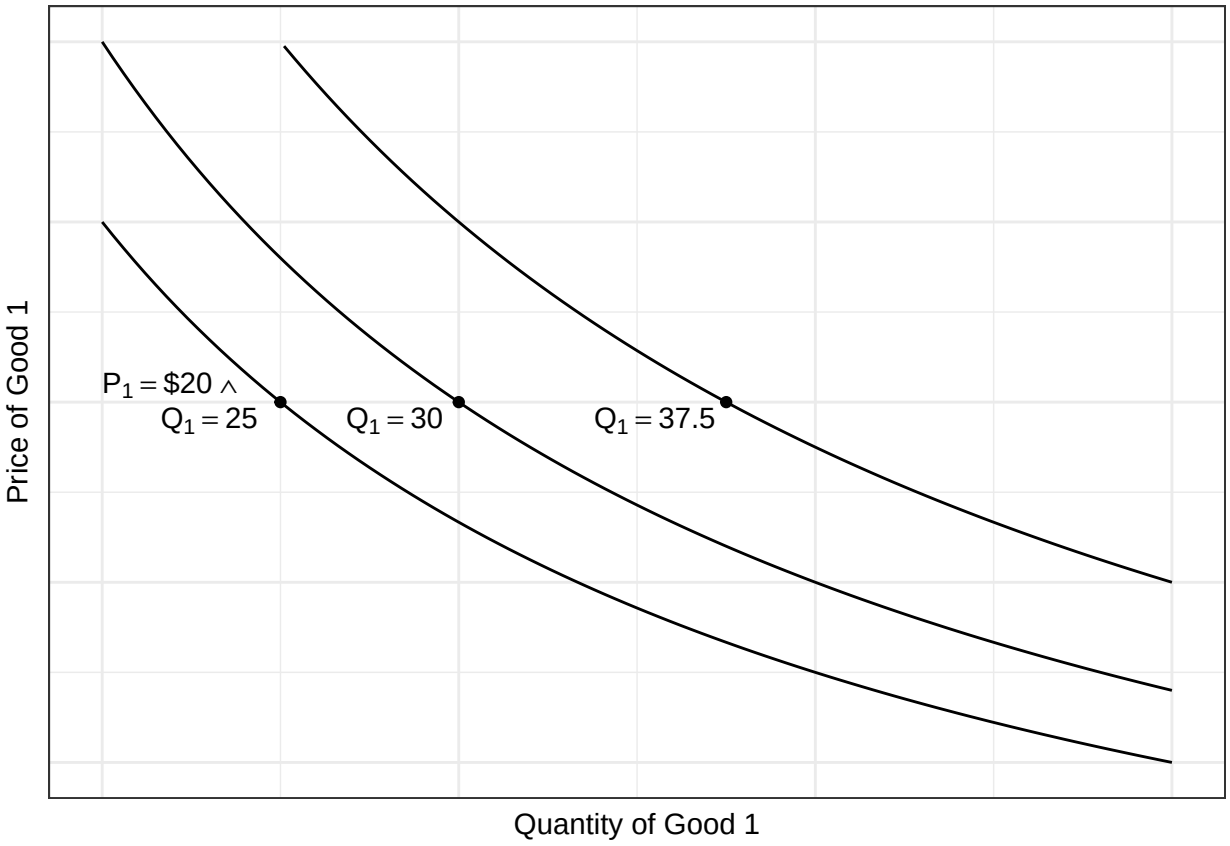

Figure 4: demand shifting.

Question 3

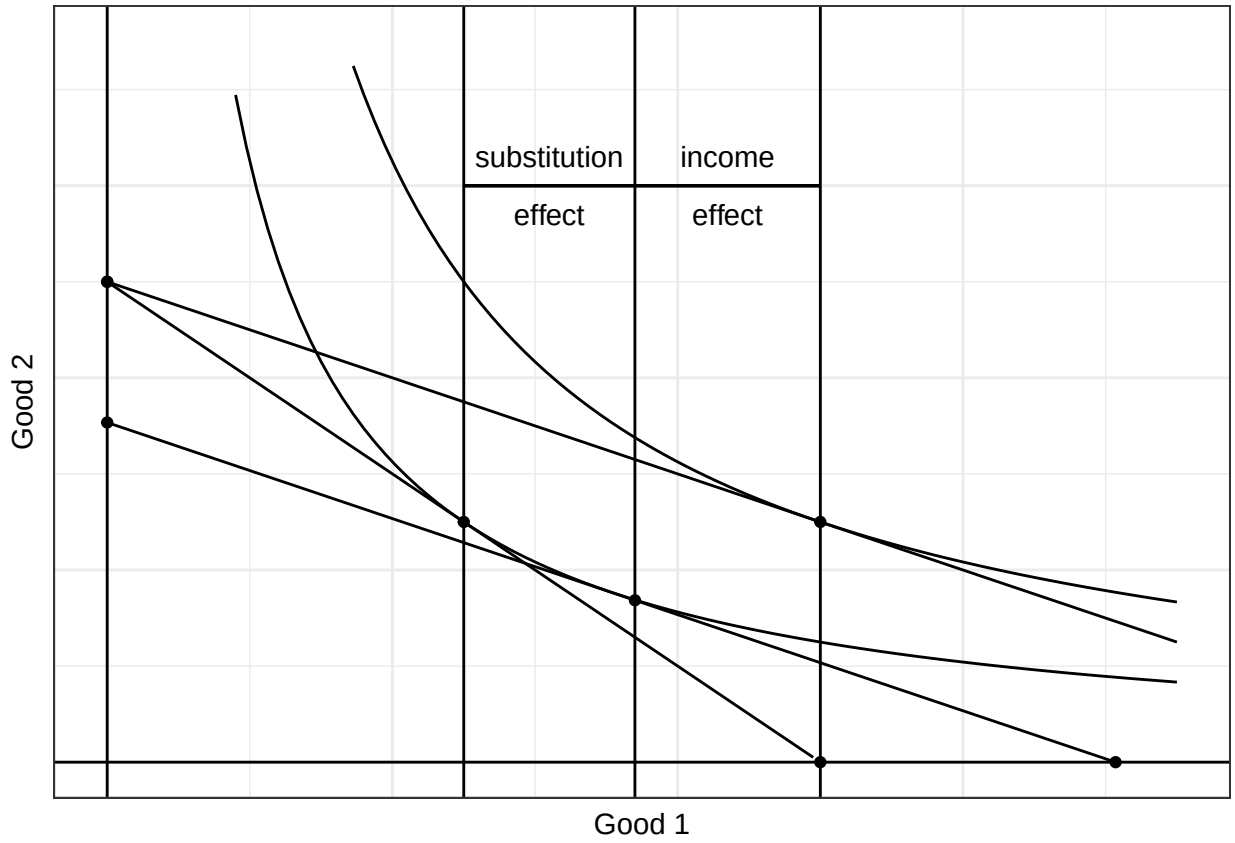

Figure 5: substitution effect vs income effect.

Question 4

A Giffen good: as price decreases, so does quantity. See fig.6.

An example which you gave us was the great potato famine of Ireland.

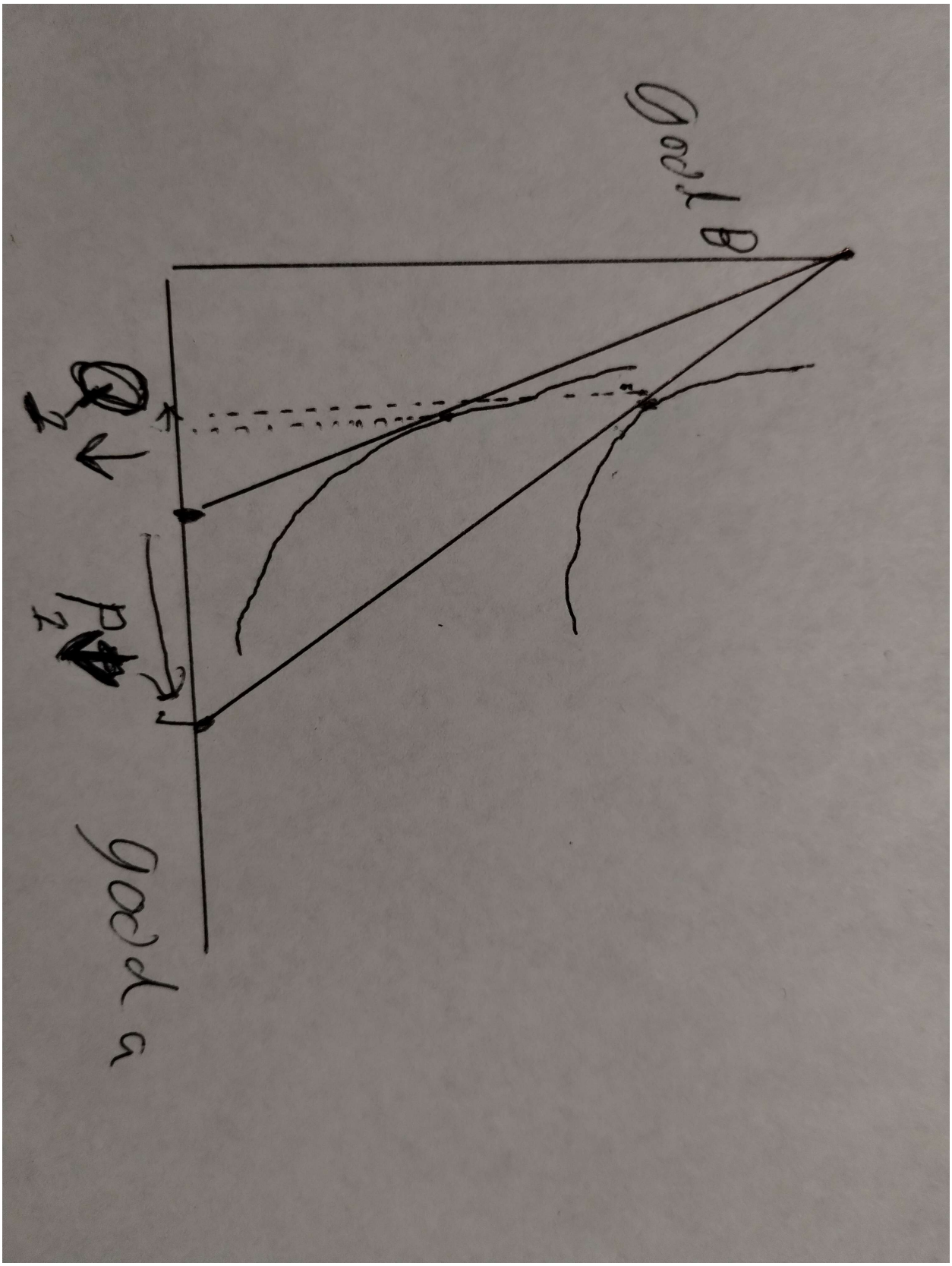

Figure 6: a giffen good.

Question 5

a.

Demand for good 1 is $\frac{Y}{4p_1}$

Demand for good 2 is $\frac{3Y}{4p_2}$

b.

The slope for good 1 is $-\frac{Y}{4p_1^2}$ The slope for good 2 is $-\frac{3Y}{4p_2^2}$

$Y > 0$ and $P1, 2 > 0$, therefor the slopes are < 0