Application - Computation

Consider an economy that has the following setup:

$$\begin{array}{lll} c_0 = 100 & c_1 = 0.6 & \bar{I} = 150 \\ G = 140 & NX = 10 & T = 100 \end{array}$$

a) What is the net capital inflow (NCI)?

b) What is equilibrium output?

c) What is disposable income

d) What is consumption

e) If c_0 decreases to 50, what is the change in equilibrium output?

f) What is demand when $c_0 = 100$? Does it equal output?

a) $NCI = -NX = -10$

b) $Y = \frac{1}{1-c_1}(C_0 + \bar{I} + G + NX) - \frac{c_1}{1-c_1}T$

$= \frac{1}{1-0.6}(100 + 150 + 140 + 10) - \frac{0.6}{1-0.6} \times 100$

$= 1000 - 150$

$= 850$

c) $Y_D = Y - T$

$= 850 - 100$

$= 750$

d) $C = C_0 + c_1 Y_D$

$= 100 + 0.6 \times 750$

$= 550$

e) The multiplier for C_0 is

$\frac{1}{1-c_1} = \frac{1}{1-0.6} = 2.5$

if C_0 decreases by 50

the equilibrium output

decreases by $50 \times 2.5 = 125$

f) the demand = output

in the equilibrium

hence it's 850

OR:

$Z \equiv C + \bar{I} + G + NX = 550 + 150 + 140 + 10 = 850$