Numerical Example (National Income)

Assume that GDP (Y) is 1,200. Consumption (C) is given by the equation $C = 125 + 0.75(Y - T)$. Investment (I) is given by the equation $I = 200 - 10r$, where $r$ is the real interest rate. Taxes (T) are 100 and government spending (G) is 150.

(A) What is the equilibrium value of $r$?

(B) What are the equilibrium values of $C$ and $I$?

(C) What are the values of private saving, public saving, and national saving?

(D) Now assume government purchases increase by 50 to 200. What are the new equilibrium values of $C$, $I$, and $r$?

(E) Now assume that we start again at $G=150$ and taxes are reduced by 20 to 80. What are the new equilibrium values of $C$, $I$, and $r$?

(F) Finally, suppose that a technological breakthrough increases investment demand such that investment rises by 100 at each interest rate. What are the new equilibrium values of $C$, $I$, and $r$?