1. Answer **True, False** or **Uncertain**. Briefly explain your answer.

   - During this decade the consumption of frozen food has increased a lot. This has caused an increase in both GDP and ‘real output’.
   - The growing importance of outsourcing — in which companies pay other companies to perform services such as cleaning, bookkeeping and so on — increases measured GDP.
   - A higher propensity to save will increase investment and therefore increase GDP.
   - The big problem of emerging markets is that they grow at a low and constant rate.

2. Assume that a retired person living in Florida receives, on average, a USD10,000 pension. During 1998 this money was spent in vitamins (USD4000) and food (USD6000).
   During 1999 the price of vitamins went up 20% and that of food went down 10%. Under these new prices, retirees spent, on average, USD2000 in vitamins and USD8000 in food.

   - Calculate the inflation rate that concerns the retirees using the basket consumed in 1998.
   - Calculate the inflation rate using the basket consumed in 1999.
   - Using your answers above, explain one of the problem in defining inflation.
   - A positive inflation is associated with an erosion of wages while a negative inflation means a higher budget in real terms. Which answer gives a better idea of the effect that the change of prices had on retirees?

3. Assume that firms in a country produce an amount equal to the demand they had in the previous year. The economy is characterized by the following values: \( c_0 = 50, \ c_1 = .7, \ I = 100, \ G = 100 \) and \( T = 100 \).

   - What is the equilibrium GDP of this economy?
   - Assume that the economy is in equilibrium when they go to war. As a result, both \( G \) and \( T \) increase to 500 during that year, returning to normal after that.
   Show the values for \( Y \) and \( Z \) during this episode and during the following 4 years. Guess the values for \( Y \) and \( Z \) in the long run (after many many years).

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1 Real output refers to total production both transacted and not transacted in the economy.