1. True, false, uncertain (explain your answers)

(a) Even a totally export-oriented county can only sell what it produces; so exports must always be less than or equal to GDP.
(b) Middle-class families used to have a stay-at-home spouse who cooked and cleaned; now they are likely to have two working adults, but go out to eat and hire a cleaning service. The result is a larger GDP, but not necessarily higher true output.
(c) The growing importance of outsourcing – in which companies pay other companies to perform services such as cleaning, bookkeeping, and so on – increases measured GDP.
(d) Official measures of GDP understate true growth because they fail to take account of the rising importance of computers in the economy.

2. The Consumer Price Index is based on a survey of household purchases in 1982-4. It is widely argued that this means that there is a “substitution bias” in the CPI, causing it to overstate true inflation since then.

(a) Explain why people think there would have been such a bias.
(b) Does the bias also cause the CPI to overstate inflation before 1982?

3. The economy of Fruitopia produces only apples and oranges. In 1988 it produced 1 million apples and 2 million oranges; by 1998 the totals had risen to 1.2 and 4 million respectively. Over that same period the price of apples rose from $1 to $1.50, but the price of oranges stayed constant at $0.75.

(a) Calculate nominal GDP in each year.
(b) Calculate the increase in real GDP over the decade, using 1988 prices.
(c) Calculate the increase using 1998 prices.
(d) Find the increase in the GDP deflator in each case.