1) Suppose that you have the following information on an economy (assume that depreciation is equal to zero).

- Gross Domestic Product: $8,500
- Government Purchases: $3,500
- Tax Revenues: $1200
- Net Exports: $800
- Net Factor Payments: $100
- Consumption Expenditures: $4,000

Find (a) national income, (b) current account, (c) private savings, (d) net investment (e) the government deficit.

(a) national income = GDP + NFP – DEP = 8,500 + 100 – 0 = 8,600

(b) Current account = NX + NFP = 800 + 100 = 900

(c) private savings = NI – T – C = 8,600 – 1,200 – 4,000 = 3,400

(d) net investment = S – (G – T) – CA = 3,400 – (3,500 – 1,200) – 900 = 200

(e) Government deficit = (G – T) = (3,500 – 1,200) = 2,300

2) Suppose that we have the following information on prices and production levels in the US. Assume that the average household spends 60% of their budget on manufactured goods and 40% on services

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th></th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price</td>
<td>Quantity</td>
<td>Price</td>
</tr>
<tr>
<td>January 1983</td>
<td>$50</td>
<td>300</td>
<td>$20</td>
</tr>
<tr>
<td>January 2013</td>
<td>$105</td>
<td>450</td>
<td>$30</td>
</tr>
<tr>
<td>January 2014</td>
<td>$115</td>
<td>440</td>
<td>$31</td>
</tr>
</tbody>
</table>

Calculate a fixed weight index (i.e. the CPI) for 2014 using 1983 as the base year.

\[ P_{2014} = (0.60)\left(\frac{115}{50}\right) + (0.40)\left(\frac{31}{20}\right) = 2.00 \]