National Income Accounting Practice Problem #3
Solution Key

a) Since $NX = X - Im, X = NX + Im = -10 + 65 = 55.$

b) Corporate Profit = Dividends + Retained Earnings + Corporate Income Tax
   = $90 + 90 + 55$
   = 235.

c) Since
   $NI = NNP - Indirect Business Taxes - Business Transfer Payments$
   $- Statistical discrepancy$
   $+ Subsidies less current surplus of government enterprises,$

   $NNP = NI + Indirect Business Taxes + Business Transfer Payments$
   $+ Statistical discrepancy$
   $- Subsidies less current surplus of government enterprises$
   $= 2000 + 57 + 0 + 0 - 0$
   $= 2057.$

d) Since $NNP = GNP - Capital Consumption Allowance,$

   $GNP = NNP + Capital Consumption Allowance$
   $= 2057 + 27$
   $= 2084.$

e) Net Factor Income from the Rest of the World =
   Receipts of factor income from the rest of the world
   $- Payments of factor income to the rest of the world$
   $= 17 - 20$
   $= -3.$

f) Since $GNP = GDP + Net factor income from the rest of the world,$

   $GDP = GNP - Net factor income from the rest of the world$
   $= 2084 - (-3)$
   $= 2087.$

g) $I_N = I_g - Capital Consumption Allowance (depreciation)$
   $= 410 - 27$
   $= 383.$
h) Since GDP = \( C + I_g + G + NX \),

\[
C = GDP - I_g - G - NX \\
= 2087 - 410 - 490 - (-10) \\
= 1197.
\]

i) Since

\[
C = \text{Durables} + \text{Nondurables} + \text{Services}, \\
\text{Durables} = C \cdot \text{Nondurables} - \text{Services} \\
= 1197 - 370 - 380 \\
= 447.
\]

j) 

\[
\text{YD} = C + S + \text{Interest paid by consumers} + \text{Personal transfer payments to foreigners} \\
= 1197 + 150 + 0 + 0 \\
= 1347.
\]

k) Since YD = PI - Personal Taxes,

\[
\text{PI} = \text{YD} + \text{Personal Taxes} \\
= 1347 + 100 \\
= 1447.
\]

l) Since

\[
\text{NI} = \text{Compensation of employees (wages and salaries)} + \text{Net Rental Income} \\
+ \text{Net Interest} + \text{Corporate Profit} + \text{Proprietors’ Income (Unincorporated profit)},
\]

Net Interest = NI - [Compensation of employees (wages and salaries) + Net Rental Income \\
+ Corporate Profit + Proprietors’ Income]

\[
= 2000 - (1300 + 100 + 235 + 200) \\
= 2000 - 1835 \\
= 165.
\]

m) 

\[
\text{Savings Rate} = \frac{\text{S}}{\text{YD}} \\
= \frac{150}{1347} \\
= .113037;
\]
that is, an 11.3 percent savings rate.

\[ n) \quad \text{Since} \]
\[ I_g = \text{New Residential Construction} + \text{New Plant and Equipment} + \text{Change in Inventories}, \]
\[ \text{Change in Inventories} = I_g - \text{New Residential Construction} - \text{New Plant and Equipment} \]
\[ = 400 - 210 - 230 \]
\[ = -40. \]

\[ o) \quad \text{Final Sales} = \text{GDP} - \text{Change in Inventories} \]
\[ = 2087 - (-40) \]
\[ = 2127. \]