ECO 311 — Homework 0

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1 Wheat and Bread

1. Calculate GDP

   - Value Added: $50 * \$3 + (50 * \$2 - 20 * \$3) = \$190$ inventory is value added
   - Expenditure: $C + G + I + NX = \$115 + 0 + \$15 + \$75 - \$15 = \$190$ inventory is investment
   - Income: $(\$50 + \$20) + ((\$45 * 3 - \$50 + 5 * \$3) + (\$100 - \$20 - \$60)) = \$190$
     inventory counts towards profits because they profited 5 bushels which are valued at \$3 each

2 Coal and Steel

1. Determine GDP

   - Value Added: $15 * \$5 + \$20 * 10 - 25 * \$5 = \$150$
   - Expenditure: $8 * \$20 + (NX = 2 * \$20 - 10 * \$5) = \$150$
   - Income: $\$50 + (15 * \$5 - \$50) + \$40 + (10 * \$20 - \$40 - 25 * \$5) = \$150$

2. Determine current account surplus and deficit: \$0
   $CA = NX + NFP = -\$10 + \$0$

3. Determine GNP: \$150

4. Determine GNP and GDP when the coal producer is owned by foreigners

   - GDP: does not change — \$150
   - GNP: $\$150 - \$25 = \$125$ subtracting profits of the coal producer

3 A Few Short Questions

1. Jim profits \$100 and contributes \$1100 to GDP.

2. Acme profits $1000 * \$30 - \$10000 - \$15000 - \$200 = \$4800$ and contributes \$15000 to GDP.

3. Government contributes \$1 million to GDP.

4. Private savings
   Total Savings = Private Savings + Gov Savings
   $\$200 = PS - \$50$
   Private Savings = \$250

5. Investment
   $I + CA = S$
   $I = (S = \$200) - (CA = -\$100) = \$300$