Solutions for H.W 1

Chapter 2.

2. value added by the farmer $1.00 \ (1 – 0=1)
   value added by the miller $2.00 \ (3 – 1=2)
   value added by the baker $3.00 \ (6 – 3 = 3)
   GDP = the value of bread (final good) = $6.00

3. GDP falls by the amount of the butler’s salary because his work now becomes part of
   the household chores.

6. a) Nominal GDP (year 2000) = $10,000,000.
   Nominal GDP (year 2010) = $15,200,000.
   Real GDP (year 2000) = $10,000,000
   Real GDP (year 2010) = $10,000,000
   Implicit Price Deflator = Nominal GDP (year 2010)/ Real GDP (year 2010) = 1.52
   CPI (year 2010) = ($60,000*100+$20*500,000) / ($50,000*100+$10*500,000) = 1.6
   b) Implicit Price Deflator (Paasche Index): basket of goods in the year 2010
   CPI (Laspeyres Index): basket of goods in the year 2000
   c) No clear-cut answer. Please refer to page 31st in your textbook.

7. a) CPI (year 2) = (2*10 + 1*0)/ (1*10 + 2*0) = 2
   b) Nominal GDP remains constant.
   c) Real GDP increases from $10 to $20.
   d) Implicit Price Deflator decreases from 1 to 0.5.
   e) No changes in true cost of living.

8. a) Real GDP falls; Economic well-being decreases.
   b) Real GDP rises; Economic well-being increases.
   c) Real GDP falls; Economic well-being decreases.
   d) Real GDP falls; Economic well-being decreases.
   e) Real GDP falls; Economic well-being may rise.
   f) Real GDP rises; Economic well-being increases.
   g) Real GDP falls; Economic well-being may rise.

Chapter 3.

1. a) Real wage drops; b) real rental rises;
   c) It is likely that both real wage and real rental increase.

2. For DRS, because fixed production factors in the economy (for example: land) become
   scarce when the economy grows; for IRS, because specialization results in more efficient
   production.

4. a) Public saving increases by $100 billion;
   b) Private saving decreases by $40 billion;
   c) National saving increases by $60 billion;
   d) Investment increases by $60 billion.

5. If consumers consume more today, then private saving thus national saving decreases.
   In this way, supply curve of loanable funds shifts to the left, leading to the rise of real
   interest rate and the fall of investment.
6. a) Private saving = 750; public saving = 0; national saving = 750.
   b) I = S or I = Y – C – G = 750; r = 5%.
   c) Private saving = 750; public saving = -250; national saving = 500.
   d) I = S = 500; r = 10%