

**Economics 152**  
**Problem Set 2**

**PART 1 (10 points)**

The following is a list of figures for a given year in billions (bn) of dollars.

(1)	Net Private Domestic Investment	\$ 32
(2)	Personal Taxes	39
(3)	Transfer Payments	19
(4)	Indirect Business Taxes	8
(5)	Corporate Income Taxes	11
(6)	Personal Consumption Expenditures	217
(7)	Consumption of Fixed Capital	7
(8)	U.S. Exports	15
(9)	Government Purchases	51
(10)	Net Foreign Factor Income Earned in the U.S.	0
(11)	Undistributed Corporate Profits	10
(12)	Social Security Contributions	4
(13)	U.S. Imports	17

Using the above data, compute the following:

(a) Gross Domestic Product (GDP)

(b) Net Domestic Product (NDP)

(c) National Income (NI)

(d) Personal Income (PI)

(e) Disposable Personal Income (DPI)

**PART 2 (6 points)**

Consider a hypothetical four-stage production process, leading to the production of the final product – wooden furniture.

<b>Stage of Production</b>	<b>Sales of Value of Materials or Product</b>	<b>Value-Added</b>
1. <b>Lumberjack</b> cuts trees	\$ 150	
2. <b>Carpenter</b> : makes furniture	\$ 225	
3. <b>Wholesale agent</b> : buys the furniture from the carpenter	\$ 250	
4. <b>Retail agent</b> : buys the furniture From the wholesale agent and Sells it to the final buyer	\$ 280	

(a) Calculate the total sales value of production

(b) Calculate the value-added at each stage of production and the total value added. Which measure (total sales value or total value added) would you use to compute GDP? Briefly explain your answer.

**PART 3 (4 points)**

The following table shows nominal GDP figures for 3 years and the price indices for each of the 3 years. (This is a one-commodity model and the GDP figures are hypothetical and in billions of dollars).

<b>Year</b>	<b>Nominal GDP</b>	<b>Price Index</b>	<b>Real GDP</b>
1994	\$ 104	121	\$ _____
1995	56	91	\$ _____
1996	91	100	\$ _____

(a) Use the price indices to compute the real GDP in each year. You may round your answers to the nearest billion dollars. Write the answers in the table.

(b) Which of the 3 years is the base year?