

ANSWER KEY TO QUIZ 1: ECON 102, SECTION 1

Prepared by SERGIY STETSENKO (sestet@sas.upenn.edu)

Q1.

1) (3 points) $GDP = 25 \times 100 - 100 \times 4 + 1000 \times 4 - 5 \times 100 = 5600$

The typical mistake here is not to consider 5 chairs sold to the wood producers as intermediate goods. Everything that is bought by productive units goes to intermediate goods.

2) (3 points) $I = 500$

3) (3 points) $I = S + M - X \rightarrow S = 1500$

Q2. (1 point for correct answer, 1 point for explanation)

True by definition of National Income.

Q3. (full credit for mentioning at least 1 record)

Part of the Factor Payments from abroad, part of GNP, not a part of GDP.

Q4.

1) On the production side: government production

2) On the expenditure side: government expenditures

A car that is bought by the government from the GM is a part of 2) not 1)

Q5. (2 points for correct answer, 2 points for explanation)

Yes. $Y = C + I + G + X - M$. A car can be in C obviously, a car at the warehouse is a part of inventory investment, a car that is bought by the government is in G and a car sold abroad is in X.

Q6.

Labor share.

Q7. (2 points for every correct answer).

Yes to both by the definition of the rental income.

Q8. (2 points for every condition).

- 1) Agents maximize given the preference and technology.
- 2) Agents' actions are compatible with each other.

Q9. (2 points for every relevant objection, max – 6 points).

- 1) GDP PC does not account for the leisure.
- 2) It counts everything as positive. Crime, war, storms are good because they generate economic activities.
- 3) Unpaid work contributes to the welfare but not to the GDP.
- 4) It does not account for the distribution of income.

Q10.

Inventory investment.

Q11.

- 1) Net National Product (NNP) is GNP minus depreciation
- 2) $GNP = GDP + NFP$

Q12. (Full credit for any relevant reason).

The change in relative prices.

Q13. (Full credit for either formulas or explanation).

See the formulas in the lecture notes. Laspeyres uses base period weights, Paasche uses current period weights.

Q14.

GDP Deflator = Nominal GDP/Real GDP. It's a Paasche type index.