

## Key Variables and Their Measurement, Part I: Problems

The following data show all goods and services purchased in Pennsylvania in 2011 and 2012. Pennsylvania is completely isolated and unapproachable, and thus does not engage in any international trade:

Item	$Q_{11}$	$P_{11}$	$Q_{12}$	$P_{12}$
Sock Puppets	100	\$150	120	\$200
New Housing	10	\$1000	5	\$1000
Old Housing	10	\$100	15	\$300
Tractors	20	\$300	25	\$280
Dr. Pepper	80	\$100	40	\$50

1. Calculate nominal GDP, consumption, and investment in Pennsylvania for 2011 and 2012?
2. Using 2011 as the base year, calculate the change in real GDP in Pennsylvania between 2011 and 2012.
3. Using 2012 as the base year, calculate the change in real GDP in Pennsylvania between 2011 and 2012.
4. Using the GDP deflator with 2011 as the base year calculate inflation in Pennsylvania between 2011 and 2012.
5. Suppose that you wished to construct a price index, similar to the Consumer Price Index, for Pennsylvania. How would this index differ from the GDP deflator?
6. True or False? Because imports are subtracted from GDP in the GDP accounting identity, GDP may be negative if the amount of imports is large enough.
7. True or False? More inflation is always a social bad.
8. True or False? Households demand and firms supply.