

Answer the following on a Scantron 882 form. Due date will be announced in class.

	Nominal GDP (In Trillions)	GDP Deflator
2000	\$9.80	170.0
2001	\$10.30	175.1

- Using the table above, what was the 2001 GDP in constant 2000 dollars (in trillions)?  
Answer: \$10.00  
Constant (or real) GDP is nominal GDP divided by the current year price index and multiplied by the index of the year you want to convert to. In this case, that gives us  $(\$10.30 \div 175.1) \times 170.0 = \$10.0$ . Notice, you can also do  $(\$10.30 \times 170.0) \div 175.1$  if you prefer--the answer is the same.
- Using the table above, what was the inflation rate between 2000 and 2001?  
Answer: 3%  
The inflation rate is the percentage change in the price level. In this case, it's either  $(175.1 - 170.0) / 170.0 = .03 = 3\%$  or  $(175.1 / 170.0) - 1 = 1.03 - 1 = .03 = 3\%$
- Using the table above, what was the growth rate of real GDP between 2000 and 2001?  
Answer: 2.04%  
To find the answer to this, you first have to answer question 1 (or at least it helps). If the real GDP for 2001 (in 2000 dollars) is \$10.00 and real GDP for 2000 (in 2000 dollars, which is the same as the nominal) is \$9.80, the growth rate is the percentage change between them, which is  $(\$10.00 - \$9.80) / 9.80 = 0.020408$  or 2.04%
- In 2000, Doris Hopin earned \$60,000 as a locksmith. In 1990, she earned \$45,000. The CPI in 2000 was 172.2 but in 1990 it was 130.7. Between 1990 and 2000, the real value of her earnings  
Answer: D. rose by less than 5%. (1.2% to be exact)  
To answer this, you must first find the real value (in 1990 dollars) of Doris's 2000 earnings. Her 2000 income in real (1990) terms is worth  $\$60,000 \times (130.7 \div 172.2) = 45,540$ . Compared to the 1990 earnings, the real value of the 2000 earnings changed by  $(45,540 - 45,000) / 45,000$ , which is a **1.2% increase**. WARNING: my test bank has several versions of this questions, all with different results, so DON'T MEMORIZE THE NUMERICAL ANSWER
- In 1982, the average hourly earnings of clerical workers in Arizona was \$6.50 per hour. By 2001, the average hourly earnings had risen to \$12.25. In 2001 the CPI was 177.5, compared to 96.5 in 1982. What was the total growth in real average earnings of clerical workers between 1982 and 2001?  
Answer: 2.46%  
To answer this, you must first find the real value (in 1982 dollars) of the 2001 earnings. This is  $\$12.25 \times (96.5 \div 177.5) = \$6.66$ . Then, you must find the growth rate between this and the original 1982 earnings of \$6.50. The growth rate is  $(\$6.66 - \$6.50) \div \$6.50 = 2.46\%$ . Remember that the numbers may be different on a quiz!!!

- 6 In the nation of Myopia, the expected rate of inflation is always zero, and inflation comes as a complete surprise to Myopics. Their neighbors in Presbyopia, however, always expect 100% inflation and are shocked if the price level rises by less than that (which it almost always does). Which of the following would you rather be?

Answer: A. A borrower in Myopia.

Since there is always unanticipated inflation in Myopia, debtors (borrowers) would benefit from inflation there. Since they get paid back less than they would need to keep up with inflation and earn real interest, creditors (lenders) are harmed in Myopia. In Presbyopia, people anticipate more inflation than there actually is, so borrowers are hurt there (the interest they are asked to repay is much more than would be required if people were accurate in predicting inflation).

- 8 How is the inflation rate determined?

Answer: B

The percentage increase in a price index from one year to the next (or since the previous year) is the inflation rate. C, the percentage increase in real GDP from one year to the next, would be the growth in real GDP or the rate of economic growth. A, the percentage increase in GDP from one year to the next, would be the growth in nominal GDP, which has no other significance. The other choices also have no special significance.

- 11 Unanticipated inflation

Answer: A. will normally hurt creditors but help borrowers.

This is the key to answering many of the other questions. Anticipated inflation helps or hurts no one in particular, but really high inflation will probably cause disruption in the economy, which tends to hurt everybody (a clue to the answer for 12).

The table below shows nominal GDP and CPI for the U.S. economy from 1995 to 2002 (in billions). Answer the questions that follow.

Year	Nominal GDP (in billions)	Real GDP (in billions)	CPI (1983=100)
1995	\$7,400.6	\$4,856.0	152.4
1996	\$7,813.2	\$4,979.7	156.9
1997	\$8,318.4	\$5,182.8	160.5
1998	\$8,781.5	\$5,387.4	163.0
1999	\$9,268.6	\$5,563.4	166.6
2000	\$9,872.9	\$5,733.4	172.2
2001	\$10,208.1	\$5,764.0	177.1
2002	\$10,383.1	\$5,771.6	179.9

- 13 What was real GDP in 1995 (in base year prices)?  
 answer: \$4856  
 $7400.6 \times (100/152.4) = \$4856.0$
- 14 What was real GDP in 1996 (in base year prices)?  
 answer: \$4,979.7  
 $7813.2 \times (100/156.9) =$
- 15 What was inflation in 1996?  
 $(156.9 - 152.4) \div 152.4 = .0295 = 2.95\%$
- 16 What was growth in real GDP in 1996?  
 One way to answer this is to find out  
 What is 1996 GDP in 1995 prices?  
 $7813.2 \times (152.4/156.9) = 7618.25$   
 Then, find the percentage change from 1995 GDP (which is already in 1995 prices):  
 $(7618.25 - 7400.6)/7400.6 = 2.55\%$   
 Another way to find the growth in real GDP in 1996 is to find both the real GDP in 1995 in base year prices and the real GDP for 1996 in base year prices, and find the percentage change between them. This would be easier if you had to answer questions 13 and 14, but would be more calculating if than the method above if you did not.  
 $(4979.7 - 4856.0)/4856.0 = 2.55\%$
- 17 What was real GDP in 1997 (in base year prices)?  
 A. \$5182.8 =  $\$8318.4 \times (100 \div 160.5)$
- 18 What was inflation in 1997?  
 A. 2.29% =  $(160.5 - 156.9) \div 156.9$  (in %)
- 19 What was growth in real GDP in 1997?  
 A. 4.08% =  $(5182.8 - 4979.7) \div 4979.7$  (in %) or  
 find real GDP for 1997 in 1996 prices, then determine the percentage change from 1996 GDP in 1996 prices:  
 real GDP for 1997 in 1996 prices is  $\$8,318.4 \times (156.9/160.5) = 8131.82$   
 growth is  $(8131.82 - 7,813.2) \div 7,813.2 = 4.08\%$
- 20 What was real GDP in 1998 (in base year prices)?  
 A. \$5387.4 =  $\$8781.5 \times (100 \div 163)$

**Take-Home Quiz #9**

MacroEconomics MWF

**ECN111, MWF 11 & MWF 12**

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**Take-Home Quiz #9**

MacroEconomics MWF

- 21 What was inflation in 1998?  
A.  $1.56\% = (163 - 160.5) \div 160.5$  (in %)
- 22 What was growth in real GDP in 1998?  
A.  $3.95\% = (5387.4 - 5182.8) \div 5182.8$  (in %)
- 23 What was real GDP in 1999 (in base year prices)?  
A.  $\$5563.4 = \$9268.6 \times (100 \div 166.6)$
- 24 What was inflation in 1999?  
A.  $2.21\% = (166.6 - 163) \div 163$  (in %)
- 25 What was growth in real GDP in 1999?  
A.  $3.27\% = (5563.4 - 5387.4) \div 5387.4$  (in %)