Quiz 1

Name: Answer Key

3 points → **1. True or false:**

If you measure all the expenditure on final goods and services in the U.S., the number will be equal (with a small discrepancy) to all the income earned by U.S. citizens, no matter which country they live in.

↓ ✗ within U.S. border

Your answer: F

7 points → **2. Short answer:**

Consider a production process that involves 3 firms: a producer, a distributor, and a vendor. Make a numerical example for calculating the total value added (table is your friend!).

Your answer:

	Cost	Sales	VA
producer	$0	$10	$10
distributor	$10	$15	$5
vendor	$15	$25	$10
Totals	$25	$50	$25 ← Total VA

10 points → **3. Problem:**

Year	Ice cream q	Ice cream p	Ice cream expenditure	Rent q	Rent p	Rent expenditure	Nominal Expenditure	Nominal Wages
2012	30	$5	$150	1	$850	$850	$1000	$1000
2013	30	$6	$180	1	$850	$850	$1030	$1000
2014	30	$7	$210	1	$900	$900	$1110	$1010

In which year the student was the "poorest"? *Hint: In which year the value of his wages was the lowest?* Show your calculations.

Step 1: Find the price level in each year:

$$CPI_t = \frac{\text{cost of basket in year } t \text{ \$}}{\text{cost of basket in base year \$}} \times 100$$

$CPI_{2012} = \boxed{100}$; $CPI_{2013} = \frac{\$1030}{1000} \times 100 = \boxed{103}$; $CPI_{2014} = \frac{\$1110}{1000} \times 100 = \boxed{111}$

Step 2: Calculate real wages in each year:

2012 - base

$W^{2012}_{2012} = \boxed{\$1{,}000}$

$W^{2012}_{2013} = W^{N}_{2013} \times \frac{CPI_{2012}}{CPI_{2013}} = \$1{,}000 \times \frac{100}{103} = \boxed{\$970.87}$ (2012 dollars)

$W^{2012}_{2014} = W^{N}_{2014} \times \frac{CPI_{2012}}{CPI_{2014}} = \$1010 \times \frac{100}{111} = \boxed{\$909.91}$ (2012 dollars)

↑ the smallest

Your answer: 2014