

Finance 30220
Quiz #1 Solutions

Name _____

- 1) The great depression represents the worst period of economic performance in US history. The downturn started in 1929 and reached its trough 5 years later. It took an additional 6 years from 1934 to 1940 to recover to pre-depression levels.

Date	Nominal GDP (Billions)	CPI
1929	103.6	17.1
1933	56.4	12.9
1940	101.4	13.9

- a) Calculate the average annual growth in nominal GDP from 1929 to 1933.

$$\left[\left(\frac{56.4}{103.6} \right)^{\frac{1}{4}} - 1 \right] * 100 = -14.1\% \quad \text{or} \quad [LN(56.4) - LN(103.6)] \left(\frac{100}{4} \right) = -15.2\%$$

- b) Calculate the average growth in real GDP from 1929 to 1933. (There is more than one way to do this)

$$\text{Real GDP (1929)} = 103.6$$

$$\text{Real GDP (1933)} = 56.4 (17.1/12.9) = 74.76$$

$$\left[\left(\frac{74.76}{103.6} \right)^{\frac{1}{4}} - 1 \right] * 100 = -7.85\% \quad \text{or} \quad [LN(74.76) - LN(103.6)] \left(\frac{100}{4} \right) = -8.2\%$$

OR

First, calculate average annual inflation from 1929 – 1933:

$$\left[\left(\frac{12.9}{17.1} \right)^{\frac{1}{4}} - 1 \right] * 100 = -6.8\% \quad \text{or} \quad [LN(12.9) - LN(17.1)] \left(\frac{100}{4} \right) = -7.0\%$$

Then subtract the inflation rate from your answer in (a)

$$-14.1\% - (-6.8\%) = -7.3\% \quad \text{or} \quad -15.2\% - (-7.0\%) = -8.2\%$$