
AP[®] Macroeconomics

Sample Student Responses and Scoring Commentary Set 1

Inside:

Free-Response Question 3

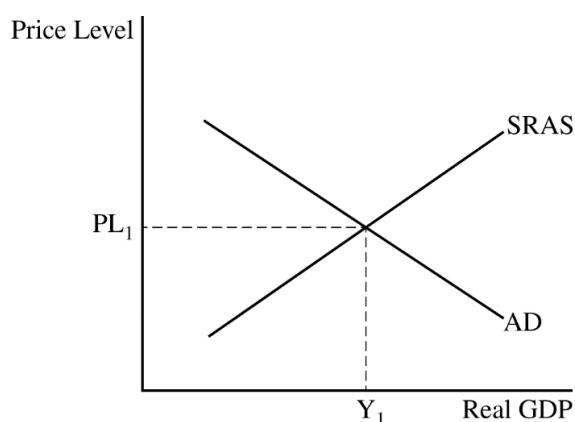
- ☒ **Scoring Guidelines**
- ☒ **Student Samples**
- ☒ **Scoring Commentary**

Question 3: Short**5 points**

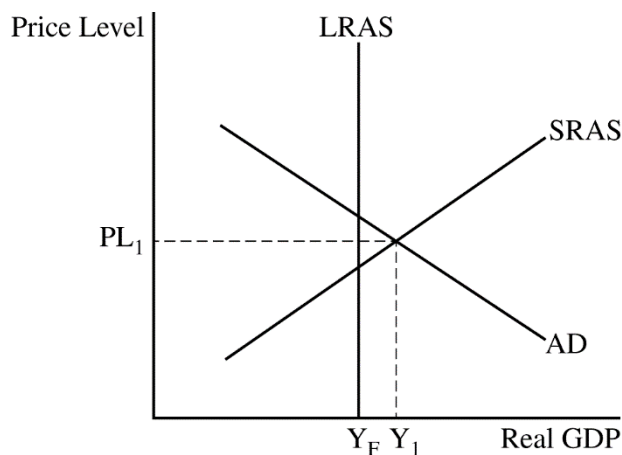
A State that the real GDP in 2021 was equal to the nominal GDP in 2021 and explain that **1 point**
 Point 1 because 2021 is the base year, no price level changes have occurred, and real values always equal nominal values in the base year.

B Calculate the real GDP in Middleland in 2022 as \$1,190 and show your work. **1 point**
 Point 2 $\text{Real GDP} = (\$11 \times 50) + (\$4 \times 70) + (\$12 \times 30) = \$1,190$

C Draw a correctly labeled aggregate demand–aggregate supply graph that shows PL_1 and **1 point**
 Point 3 Y_1 at the intersection of the aggregate demand (AD) and short-run aggregate supply (SRAS) curves.



Point 4 The graph must show a vertical long-run aggregate supply (LRAS) curve to the left of Y_1 and label the full-employment output as Y_F . **1 point**



D Calculate the minimum change in government spending as a decrease of \$8 and show **1 point**
 Point 5 your work.

$$\text{Min Change} = \frac{\text{Output Gap}}{\text{Spending Multiplier}} = \frac{(\$1,150 - \$1,190)}{\frac{1}{(1 - 0.8)}} = \frac{-\$40}{5} = -\$8$$

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3

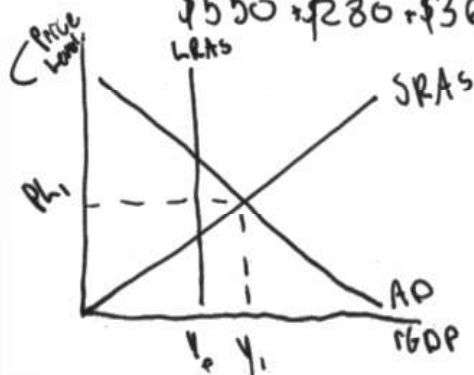
Begin your response to each question at the top of a new page.

A. The real GDP in 2021 was equal to the nominal GDP because real GDP adjusts the nominal GDP for inflation compared to the base year. Since 2021 is the base year, there is no inflation to adjust for, and the real GDP is equal to the nominal GDP.

B. $\text{GDP} = \text{Price of base year} \times \text{Quantity of current year}$

$$\$11.50 \text{ shirts} = \$550 \quad \$4.76 \text{ bread} = \$280 \quad \$12.30 \text{ pants} = \$360$$

$$\$550 + \$280 + \$360 = \$1190$$



$$D \text{ MPS} = 1 - \text{MPC} = 1 - .8 = .2 \quad \text{spending mult.} = \frac{1}{\text{MPS}} = \frac{1}{.2} = 5$$

$$\text{Output gap} = \text{Actual} - \text{Potential} = 1190 - 1150 = \$40$$

$$\$40 = \text{spending mult.} \cdot \Delta \text{ government spending} = 5 \cdot -g$$

$$\frac{40}{5} = 8 = -g \quad -8 = g$$

The government needs to decrease spending by \$8 to close the output gap

Page 4

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page.

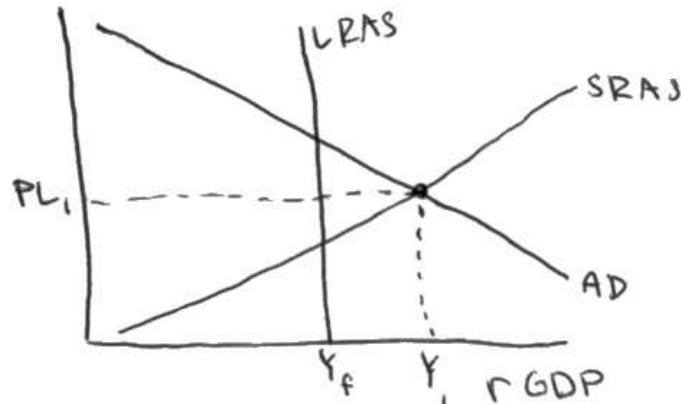
A. The real and nominal GDP were equal in 2021 because 2021 is the base year. As quantity is constant when calculating real and nominal GDP and the prices are the same as 2021 is also used as the base year, the real and nominal GDP are equal to one another.

B.

$$50(\$11) + 70(\$4) + 30(\$12) = \boxed{\$1190}$$

C.

Price level

D. $MPC = 0.8$ $MPS = 0.2$

$$\Delta rGDP = 1190 - 1150 = 40 \text{ (decr. gov. spending)}$$

$$40 \cdot \frac{1}{0.2} = \$200$$

A \$200 decrease in government spending is necessary to close the output gap in Middleland

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1



Question 2



Question 3



Begin your response to each question at the top of a new page.

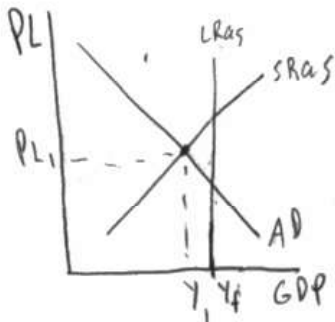
A. Real GDP was less than nominal because the overall prices from the base year were lower

B. $(11.50) + (4.70) + (12.30)$

$550 + 280 + 360$

$\$1190$

C.



D.

$1190 - 1150 = 40$

$\frac{1}{MPS} = 5$

$40 \cdot 5$

$\$200$

Page 4

Use a pencil or pen with black or dark blue ink. Do NOT write your name. Do NOT write outside the box.

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Question 3

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

NEW for 2025: The question overviews can be found in the *Chief Reader Report on Student Responses* on [AP Central](#).

Sample: 3A

Score: 5

Part A: The response earned point 1 for stating that the “real GDP in 2021 was equal to the nominal GDP” in 2021 and explaining that “[s]ince 2021 is the base year, there is no inflation to adjust for, and the real GDP is equal to the nominal GDP.”

Part B: The response earned point 2 for calculating the real GDP as \$1,190 and showing the work.

Part C: The response earned point 3 for drawing a correctly labeled aggregate demand–aggregate supply graph showing PL_1 and Y_1 at the intersection of AD and SRAS. The response earned point 4 for showing a vertical LRAS curve to the left of Y_1 and labeling the full-employment output as Y_F .

Part D: The response earned point 5 for calculating the minimum change in government spending as a decrease of \$8 and showing the work.

Sample: 3B

Score: 4

Part A: The response earned point 1 for stating that the real GDP in 2021 was equal to the nominal GDP in 2021 and explaining that “the prices are the same as 2021 is also used as the base year, the real and nominal GDP are equal to one another.”

Part B: The response earned point 2 for calculating the real GDP as \$1,190 and showing the work.

Part C: The response earned point 3 for drawing a correctly labeled aggregate demand–aggregate supply graph showing PL_1 and Y_1 at the intersection of AD and SRAS. The response earned point 4 for showing a vertical LRAS curve to the left of Y_1 and labeling the full-employment output as Y_F .

Part D: The response did not earn point 5 because it calculates the minimum change in government spending as a decrease of \$200.

Question 3 (continued)**Sample: 3C****Score: 2**

Part A: The response did not earn point 1 because it states that the real GDP was less than the nominal GDP.

Part B: The response earned point 2 for calculating the real GDP as \$1,190 and showing the work.

Part C: The response earned point 3 for drawing a correctly labeled aggregate demand–aggregate supply graph showing PL_1 and Y_1 at the intersection of AD and SRAS. The response did not earn point 4 because the LRAS curve is drawn to the right of Y_1 .

Part D: The response did not earn point 5 because it calculates the minimum change in government spending as an increase of \$200.