2022

AP CollegeBoard

AP® Macroeconomics

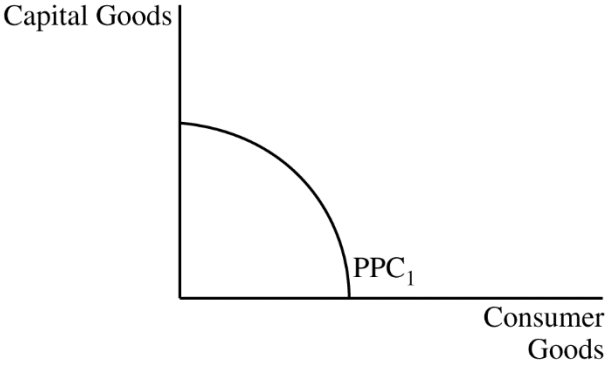
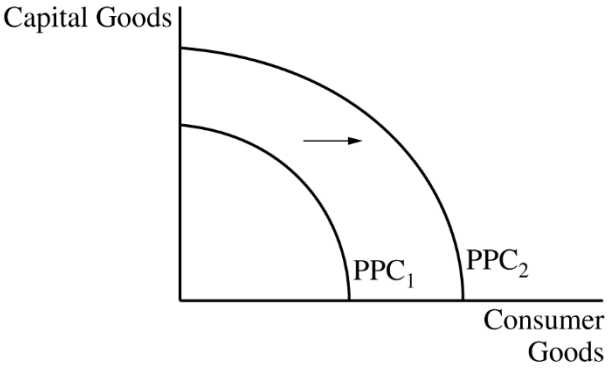
Sample Student Responses and Scoring Commentary Set 2

Inside:

Free-Response Question 2

- ☑ **Scoring Guidelines**
- ☑ **Student Samples**
- ☑ **Scoring Commentary**

Question 2: Short — 5 points

(a)	Calculate Country A's real GDP in 2021 as 44,000, calculate Country A's real GDP per capita in 2021 as 400, and show your work. $\text{Real GDP} = \frac{88{,}000}{200} \times 100 = 44{,}000$ $\text{Real GDP per Capita} = \frac{44{,}000}{110} = 400$	**1 point**
(b)	State that the standard of living for the average person in Country A has stayed the same from 2020 to 2021 and explain that real GDP per capita in Country A did not change from 2020 to 2021.	**1 point**
(c)	State that an increase in government spending on education will promote economic growth in Country A and explain that human capital will increase and the labor force will become more productive.	**1 point**
(d)	Draw a correctly labeled graph of the production possibilities curve. 	**1 point**
	For the second point, the graph must show an outward shift of the production possibilities curve. 	**1 point**
	Total for part (d)	**2 points**
	Total for question 2	**5 points**

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) GDP deflator = Nominal GDP / Real GDP * 100

i] Real GDP in 2021: 200 = 88000 / Real GDP * 100

Real GDP = $44 000

ii] Real GDP per capita: Real GDP / population

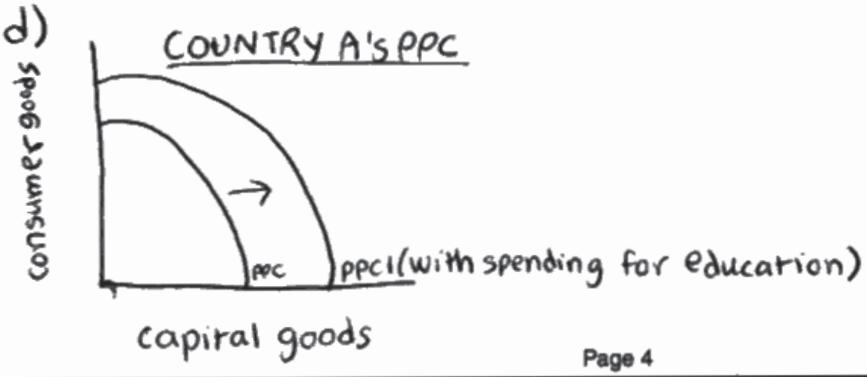
= 44000 / 110

Real GDP per capita = $ 400

b) The standard of living for the average person in Country A has stayed the same because the real GDP per catia for both years is the same. In 2020 the real GDP per capita was $400 as the Real GDP was 40,000 and population was 100. That is also the value of real GDP per capita in 2021, so standard of living for the average person stayed the same.

c) By having the government spendon education economic growth would increase. Economic growth will increase because better education leads to productivity, and productivity leads to economic growth. Education leads to productivity as workers are more skilled.

d)



● **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.

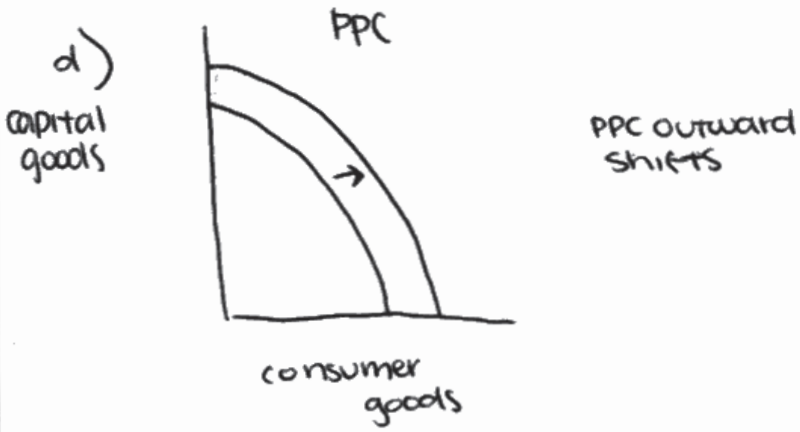
a) i. $\frac{88,000 \cdot 200}{100} = 1760$ Real GDP

ii $\frac{1,760}{110} = 16$ real GDP per capita

b) The standard of living has increased between 2020 + 2021. Per capita GDP is greater in 2021

c) Economic growth would increase. This is because education leads to better human capital, with better workers economic productivity will increase.

d)



PPC outward shifts

● **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.

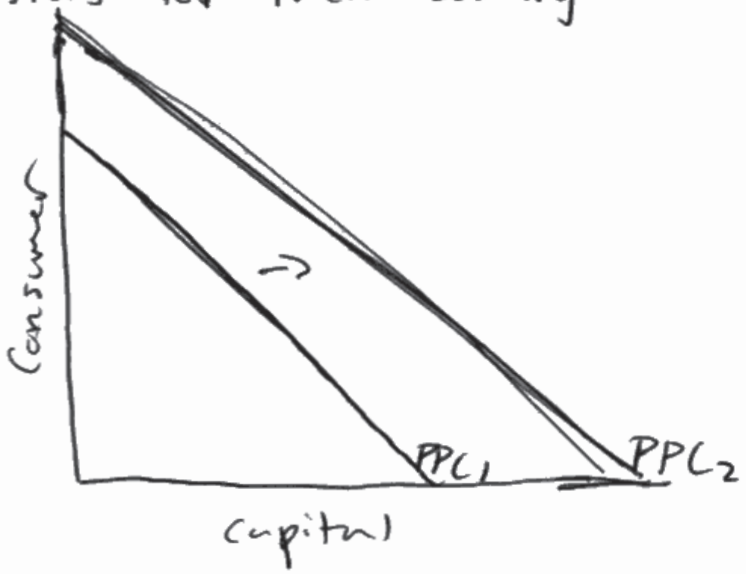
a.) i. Real GDP = $\frac{88,000}{200}$ = 440

ii. Real GDP per cap = $\frac{440}{110}$ = 4

b.) Based off the data the standard of living in 2020 was 4, and the standard of liviny in 2021 was also 4. Therefore the standart of living has stayed the same from the years 2020 - 2021.

C.) An increase in gov. spending on education would boost long run economic growth because it will ensure the next generation to make better economic decisions for their country.

d.)



Question 2

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

Overview

The question examined students' ability to calculate real GDP and real GDP per capita given macroeconomic data and their understanding of the concepts of standard of living and economic growth. Part (a) required students to calculate real GDP and real GDP per capita. In part (b) students were asked to identify and explain whether the standard of living increased, decreased, or remained the same. In part (c) students were asked to identify and explain how an increase in government spending on education would affect economic growth. Finally, in part (d) students were asked to draw a correctly labeled production possibilities curve and show the effect of the increase in government spending on education on the graph.

Sample: 2A
Score: 5

The response earned 1 point in part (a) for correctly calculating rGDP and rGDP per capita in 2021 and showing the work. The response earned 1 point in part (b) for stating that the standard of living stayed the same and explaining that rGDP per capita stayed the same. The response earned 1 point in part (c) for stating that spending on education will increase economic growth and explaining that human capital will increase and the labor force will become more productive. The response earned the first point in part (d) for drawing a correctly labeled PPC graph. The response earned the second point in part (d) for correctly shifting the PPC curve outward along both axes.

Sample: 2B
Score: 3

The response did not earn the point in part (a) because rGDP and rGDP per capita are not calculated correctly. The response did not earn the point in part (b) because it states that the standard of living has increased. The response earned 1 point in part (c) for stating that spending on education will increase economic growth and explaining that human capital will increase and the labor force will become more productive. The response earned the first point in part (d) for drawing a correctly labeled PPC graph. The response earned the second point in part (d) for correctly shifting the PPC curve outward along both axes.

Sample: 2C
Score: 2

The response did not earn the point in part (a) because rGDP and rGDP per capita are not calculated correctly. The response did not earn the point in part (b) because it uses an incorrect rGDP per capita calculation ("4") in the explanation. The response did not earn the point in part (c) because it does not explain that human capital will increase and the labor force will become more productive. The response earned the first point in part (d) for drawing a correctly labeled PPC graph. The response earned the second point in part (d) for correctly shifting the PPC curve outward along both axes.