

AP[®] MACROECONOMICS 2016 SCORING GUIDELINES

Question 3

5 points (1+1+2+1)

(a) 1 point:

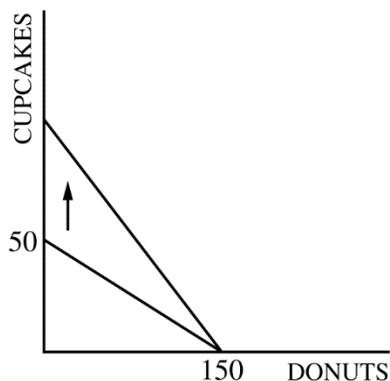
- One point is earned for stating that John has the absolute advantage in producing donuts and for explaining that John can produce more donuts than Erica in one day ($200 > 150$).

(b) 1 point:

- One point is earned for stating that Erica has a comparative advantage in producing donuts and for explaining that Erica's opportunity cost of producing one donut ($1/3$ of a cupcake) is less than John's opportunity cost of producing one donut ($1/2$ of a cupcake).

(c) 2 points:

- One point is earned for indicating that John will benefit from specialization and trade.
- One point is earned for indicating that Erica will not benefit from specialization and trade.



(d) 1 point:

- One point is earned for drawing a correctly labeled graph of Erica's production possibilities curve, before the technology change, and for rotating the production possibilities curve outward showing greater production of cupcakes after the technology change.

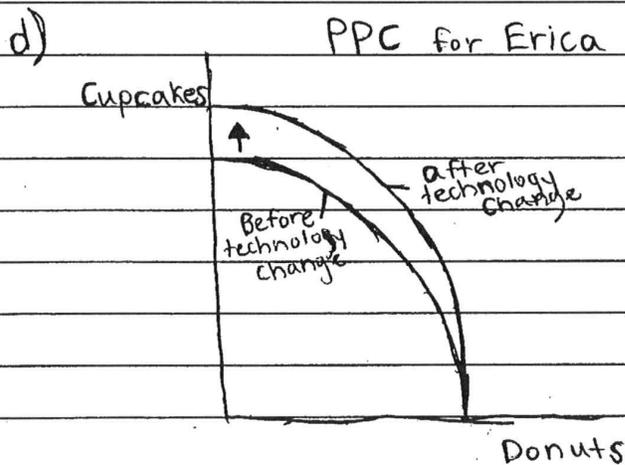
a) John has the absolute advantage in producing Donuts because he can produce 200 donuts in one day compared to Erica's 150 donuts in one day.

b) Erica has the comparative advantage in producing donuts because in order for her to produce 1 donut she ~~gives up~~ only gives up the opportunity to produce $\frac{1}{3}$ of a cupcake, but in order for John to produce 1 donut he has to give up the opportunity of producing half of a cupcake.

c) John would produce cupcakes and Erica would produce donuts

i) Specialization and trade are beneficial to John

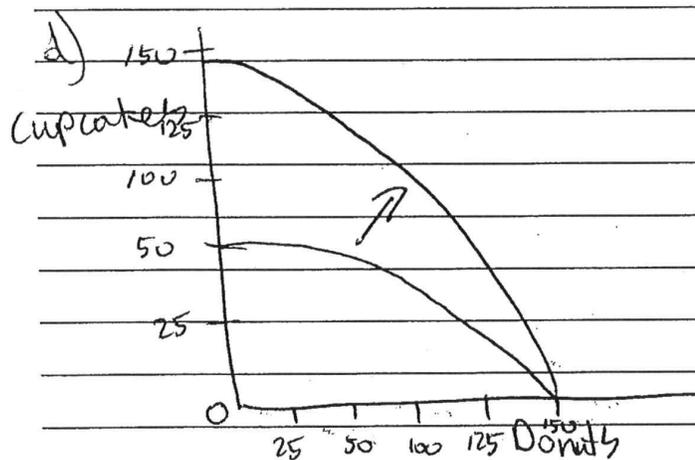
ii) Specialization and trade are not beneficial to Erica



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ANSWER PAGE FOR QUESTION 3

- a) John has the absolute advantage in producing donuts because he can produce the most donuts with the least inputs.
- b) Erica has the comparative advantage in producing donuts because her opportunity cost for one donut is $\frac{1}{3}$ cupcakes, while John's is $\frac{1}{2}$ cupcakes, so she has the lower opportunity cost.
- c) i) Specialization and trade is not beneficial for John because his opportunity cost for one donut is higher than Erica's.
 ii) Specialization and trade is beneficial for Erica because she can afford to give one cupcake and in turn receive four donuts.



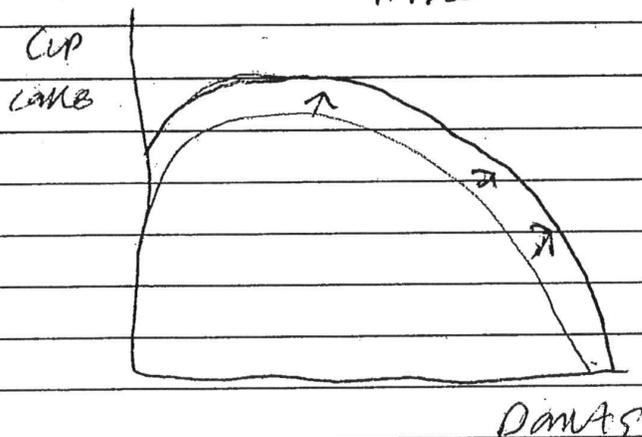
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John has the absolute advantage in producing donuts, because John is able to produce 200 donuts in one day, while Erica is only able to produce 150.

John also has the comparative advantage in producing donuts, because he can produce 50 more donuts than Erica in one day.

Specialization and trade would not be beneficial to Erica because he can produce Erica on both donuts and cupcakes. Specialization and trade would be beneficial to Erica because she has a comparative advantage in donuts, and can make use of trade for cupcakes.

P.P.C



New technology ~~increases~~ increases, or shifts the P.P.C. outward.

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AP[®] MACROECONOMICS
2016 SCORING COMMENTARY

Question 3

Overview

This question tested students' knowledge of absolute advantage, comparative advantage, and exchange. From a table of production capabilities of two individuals for two goods, students were asked in part (a) to explain who has the absolute advantage and in part (b) to explain who has the comparative advantage. Part (c) provided a rate at which the two goods can be exchanged and asked whether each individual can gain from exchange. Part (d) required students to show the effect of a change in technology for one good on the production possibilities curve of one individual.

Sample: 3A

Score: 5

The student answers all parts of the question correctly and earned all the points.

Sample: 3B

Score: 3

The student did not earn 2 points in part (c) for incorrectly indicating that specialization and trade are not beneficial to John but beneficial to Erica.

Sample: 3C

Score: 1

The student earned 1 point in part (a) for correctly identifying that John has the absolute advantage in the production of donuts and for explaining that John is able to produce 200 donuts in one day while Erica is only able to produce 150 donuts in one day.