

AP[®] MACROECONOMICS
2008 SCORING GUIDELINES

Question 3

6 points (1 + 2 + 2 + 1)

(a) 1 point:

- One point is earned for stating that the opportunity cost of a bicycle in Artland is $600/300 = 2$ hats.

(b) 2 points:

- One point is earned for stating that Rayland will import bicycles.
- One point is earned for any one or more of the following explanations:
 - Rayland has a comparative advantage in hats.
 - Rayland has a comparative disadvantage in bicycles.
 - Rayland has a lower opportunity cost in hats or higher opportunity cost in bicycles.
 - Artland has a comparative advantage in bicycles.
 - Artland has a comparative disadvantage in hats.
 - Artland has a lower opportunity cost in bicycles or a higher opportunity cost in hats.

(c) 2 points:

- One point is earned for stating that it is advantageous for Artland.
- One point is earned for stating that it is NOT advantageous for Rayland.

(d) 1 point:

- One point is earned for stating that Rayland has a comparative advantage in producing hats.

a) the opportunity cost of a bicycle in Artland is $\frac{600}{300} = 2$ hats

b) Rayland would import bicycles because it has the comparative advantage in producing hats because its opportunity cost of producing one hat is $\frac{2}{4}$ of a bicycle whereas the opportunity cost of producing one hat in Artland is $\frac{1}{2}$ of a bicycle

c)

i) trade would be advantageous for Artland

ii) trade would not be advantageous for Rayland

d) Rayland would still have the comparative advantage in producing hats because even though productivity in Artland tripled, the opportunity costs stayed the same

3) a. 2 hats

b. Rayland would import bicycles b/c Artland has comparative advantage in them, thus they would export them.

c. i) NO

ii) YES

d. Rayland - although productivity^{in Artland} tripled, the opportunity costs are still the same, so Rayland still has comp advantage.

	Rayland	Artland	comparative advantage
3A Hats	1200	600	2 $\left(\frac{1}{2}\right)$
Bicycles	300	300	(1) 1

Rayland produce bicycles
Artland produce HATS

A) The opportunity cost, which is the next best alternative, of producing a bicycle would be to produce 2 hats.

B) If the two countries specialize in trade, Artland would import bicycles. As shown above, Rayland has the comparative advantage in producing bicycles, so Rayland should trade bicycles w/ Artland. Artland imports bicycles, and in return trades with hats.

C) i) Artland produces 600 hats
Rayland produces 300 bicycles

If the terms of trade was 5 hats for 1 bicycle,
Artland would receive 120 bicycles while
Rayland receives 600 hats

i) Not advantageous

ii) Advantageous

Write in the box the number of the question you are answering on this page as it is designated in the exam.

3

3C₂

Triple production for Artland

	Rayland	Artland		
Hats	1200	1800	$\frac{12}{18}$	$\frac{18}{12}$
Bicycles	300	900	$\frac{3}{9}$	3

If productivity in Artland triples, Rayland has the comparative advantage in producing hats

**AP[®] MACROECONOMICS
2008 SCORING COMMENTARY**

Question 3

Overview

This question assessed the ability of students to calculate a nation's opportunity cost from a production possibility curve and then use the calculated opportunity cost to identify which good will be imported; determine whether trade will be advantageous given a terms of trade; and determine the effect of a change in productivity on comparative advantage.

Sample: 3A

Score: 6

All parts are correctly answered.

Sample: 3B

Score: 4

The student lost 2 points in part (c) for incorrectly stating that Artland would not benefit from trade and for incorrectly stating that Rayland would benefit from trade.

Sample: 3C

Score: 2

The student lost 2 points in part (b): 1 point for incorrectly asserting that Artland would import bicycles and 1 point for incorrectly calculating that Rayland has a comparative advantage in the production of bicycles. One point was lost in part (c)(i) for incorrectly asserting that trade for Artland will be disadvantageous, and 1 point was lost in part (c)(ii) for incorrectly asserting that trade for Rayland will be advantageous.