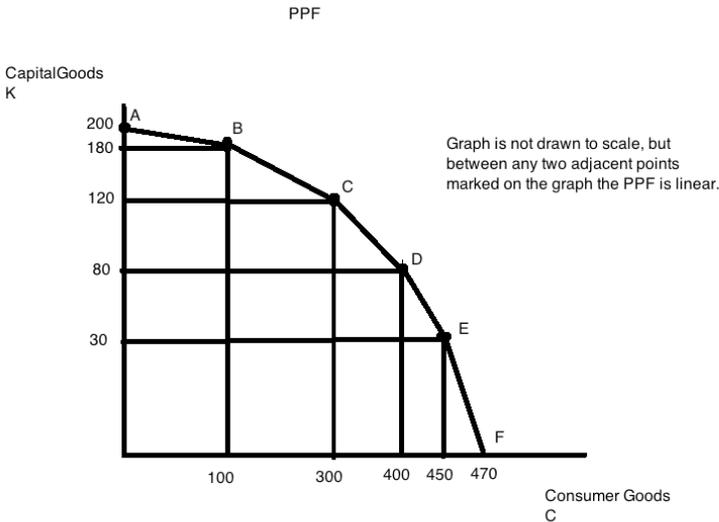


Please write your answers neatly and legibly.

1. Zerbria is a country that produces two types of goods: consumer goods and capital goods. Capital goods are primarily plant and equipment: that is, goods that are manufactured in order to help Zerbria produce more goods in future time periods. Suppose you are given the following production possibility frontier (PPF) for Zerbria where capital goods (K) are measured on the y-axis and consumer goods (C) are measured on the x-axis. Assume that between each designated point on the PPF that the PPF is linear: for example, between points A and B the PPF is linear, between points B and C the PPF is linear, etc. Use this image to answer this set of questions.



a. (1 point) Suppose that Zerbria is currently producing at point D on this PPF. What is the opportunity cost for Zerbria of producing one additional unit of consumer goods? In your answer make sure you provide a numeric value as well as the units of measurement. For full credit show the work you did to find your answer.

b. (1 point) Suppose that Zerbina is currently producing at point D on this PPF. What is the opportunity cost for Zerbina of producing 10 additional units of capital goods? In your answer make sure you provide a numeric value as well as the units of measurement. For full credit show the work you did to find your answer.

c. (1 point) Write an equation in slope-intercept form for Zerbina's PPF for the segment between points B and C. Use K as your symbol for capital goods and C as your symbol for consumer goods. For full credit show the work you did to find your answer.

d. (2 points) For each of the following coordinate points (C, K) determine whether the points lies on Zerbina's PPF, is infeasible, or is feasible but inefficient.

i. (C, K) = (425, 55) \_\_\_\_\_

ii. (C, K) = (440, 50) \_\_\_\_\_

iii. (C, K) = (460, 10) \_\_\_\_\_

iv. (C, K) = (150, 150) \_\_\_\_\_

Workspace:

2. Consider Marion and Adam, two individuals who produce zippers ( $Z$ ) and radios ( $R$ ). Both Marion and Adam have linear PPFs for these two goods. Marion knows that she is able to produce  $(R, Z) = (10, 15)$  and  $(30, 5)$  given his PPF. Adam knows that he can produce  $(R, Z) = (20, 0)$  and  $(5, 15)$  given his PPF. Use this information to answer this set of questions.

a. (2 points) In the space below draw two graphs. In the first graph depict Marion's PPF measuring Zippers ( $Z$ ) on the vertical axis and Radios ( $R$ ) on the horizontal axis: label this graph "Marion's PPF". Make sure you fully label this graph and the numeric values for the x and y intercepts. In the second graph depict Adam's PPF using the same labeling conventions.

b. (1 point) Given the above information:

i. Who has the comparative advantage in the production of radios? \_\_\_\_\_

ii. Who has the absolute advantage in the production of radios? \_\_\_\_\_

iii. What is Marion's opportunity cost of producing one zipper? \_\_\_\_\_

iv. What is Adam's opportunity cost of producing one zipper? \_\_\_\_\_

Workspace:

c. (1 point) In the space below draw the joint PPF for Marion and Adam given the above information. Measure zippers on the vertical axis and radios on the horizontal axis. Identify all numeric values for intercepts as well as numeric values for any “kink points” that are in your graph.

d. (2 points) In the space below provide a number line as discussed in class that provides the range of acceptable trading prices for 10 zippers. These trading prices should be measured in terms of radios. In your depiction of the acceptable range of trading prices include arrows indicating Marion’s perspective and Adam’s perspective.