PPF and Opportunity costs

Practice I

Atlantis is a small, isolated island in the South Atlantic. The inhabitants grow potatoes and catch fish. The accompanying table shows the maximum annual output combinations of potatoes and fish that can be produced. Given their limited resources and available technology, as they use more of their resources for potato production, there are fewer resources available for catching fish

Maximum annual output options	Quantity of potatoes (pounds)	Quantity of fish (pounds)
A	1,000	0
B	800	300
C	600	500
D	400	600
E	200	650
F	0	675

- Draw a production possibility frontier with potatoes on the horizontal axis and fish on the vertical axis illustrating these options, showing points A-F.

- Can Atlantis produce 500 pounds of fish and 800 pounds of potatoes? Explain.

- What is the opportunity cost of increasing the annual output of potatoes from 600 to 800 pounds?

- What is the opportunity cost of increasing the annual output of potatoes from 200 to 400 pounds?

- What does this imply about the slope of the production possibility frontier?

Practice II

In the ancient country of Roma, only two goods, spaghetti and meatballs, are produced. There are two tribes in Roma, the Tivoli and the Frivoli. By themselves the Tivoli each month can produce either 30 pounds of spaghetti and no meatballs, or 50 pounds of meatballs and no spaghetti, or any combination in between. The Frivoli, by themselves, each month can produce 40 pounds of spaghetti and no meatballs, or 30 pounds of meatballs and no spaghetti, or any combination in between.

- Assume that all production possibility frontier are straight lines. Draw one diagram showing the monthly production possibility frontier for the Tivoli and another showing the monthly production possibility frontier for the Frivoli.

- Which tribe has the comparative advantage in spaghetti production? In meatball production?