3. Assume that the table below shows the unemployment and inflation data in Country X as a result of a shift in aggregate demand.

| Period	Unemployment Rate	Inflation Rate
Last year	2%	8%
This year	5%	4%

(a) Draw a correctly labeled graph of a short-run Phillips curve for Country X, showing the actual unemployment and inflation rates for both years. Label the Phillips curve as SRPC.

(b) Now assume that the short-run aggregate supply curve has shifted to the left.

   (i) Identify one factor that could cause the aggregate supply curve to shift to the left.

   (ii) On the graph, show how this shift would affect the short-run Phillips curve.

(c) Assume that the natural rate of unemployment in Country X is 5 percent. Draw a correctly labeled graph of the long-run Phillips curve and label it as LRPC.

(d) What is the relationship between the unemployment rate and the inflation rate in the long run?

END OF EXAM

6 points (2 + 2 + 1 + 1)
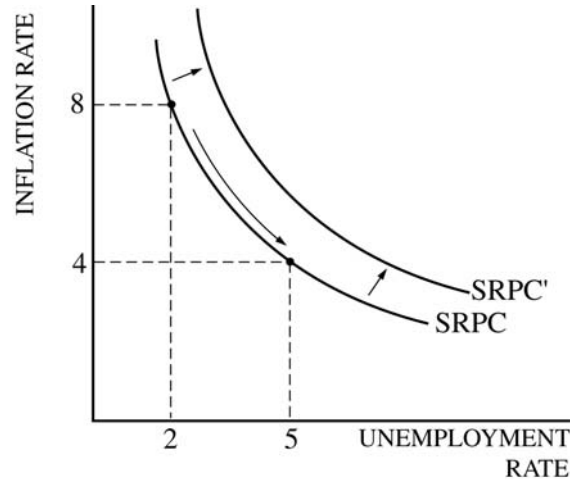
(a) 2 points:
- One point is earned for correctly labeling axes.
- One point is earned for correctly plotting actual data points and showing a downward-sloping short-run Phillips curve.

(b) 2 points:
- One point is earned for identifying a correct factor, such as increase in input prices, production costs, expected inflation, or business taxes.
- One point is earned for showing an outward shift of the short-run Phillips curve from part (a).

(c) 1 point:
- One point is earned for graphing the long-run Phillips curve, vertical at the unemployment rate of 5 percent.

(d) 1 point:
- One point is earned for stating that there is no trade-off between inflation and unemployment in the long run.