In-class Exercise on Aggregate Supply and Demand

1. The Aggregate Demand (AD) curve shows an ________ relationship between the price level (CPI) and real GDP.

2. At point \( a \), real GDP = ____ and the CPI = _____.

3. At point \( b \), real GDP = ____ and the CPI = _____.

4. If the price level (CPI) went from 40 to 100 in a single year, the annual rate of inflation would be: ________.

5. Graph the AD curve based on the following table:

<table>
<thead>
<tr>
<th>Price Level (CPI) 1982-1984 = 100</th>
<th>Real GDP ($ tril)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0.5</td>
</tr>
<tr>
<td>140</td>
<td>2</td>
</tr>
<tr>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>75</td>
<td>6</td>
</tr>
<tr>
<td>50</td>
<td>11</td>
</tr>
</tbody>
</table>

6. Shifts in AD are caused by changes in one more or more of the components of AD (C, I, G, and (X-M)). For each of the following, say whether AD would increase (shift right) or decrease (shift left), ceteris paribus.

   a. Increase in C ________
   b. Decrease in I ________
   c. Increase in G ________
   d. Decrease in (X-M) ________
7. What is the full employment level of GDP in the graph to the left?

8. In the Keynesian model, the aggregate supply curve is seen as horizontal. How does the price level and real GDP change as aggregate demand shifts from $AD_1$ to $AD_2$ and from $AD_2$ to $AD_3$?

9. In the classical model, seen to the left, what is the full employment GDP?

10. In the classical model, AS is seen as vertical. How does the price level and real GDP change as aggregate demand shifts from $AD_1$ to $AD_2$ and from $AD_2$ to $AD_3$?

11. In the Three Ranges of AS model, there is a horizontal Keynesian range, and vertical classical range, and an upward-sloping intermediate range of the AS curve. How does the price level change as we move from equilibrium point $a$ to point $b$?
Draw a graph of AS-AD for each of the following, using the Three Ranges of AS. Indicate with an arrow whether the price level and real GDP rises, falls or indicate with a bar over the term if it stays the same:

1. A reduction in aggregate demand in the Keynesian range of the AS curve.
   Price Level
   Real GDP

   Price Level
   Real GDP

3. An increase in aggregate demand in the classical range of the AS curve.
   Price Level
   Real GDP
1. Moving from point ____ to point ____ , we see pure inflation, no change in real GDP.
2. Moving from point ____ to point ____ , we see pure growth, no change in the price level.
3. Moving from point ____ to point ____ , we see mild inflation, and real GDP grows from $4 to $7 tril.
4. Moving from point ____ to point ____ , we see high inflation, real GDP grows by $1 tril.
5. Moving from point ____ to point ____ , we see deflation where the CPI goes from 86 to 45, and real GDP decreases by $3 tril.
6. Moving from point ____ to point ____ , we see deflation, and real GDP falls from $10 to $4 tril.