1.

a. The statement that a reduction in the rate of money growth will reduce the rate of inflation is a positive statement. Economists have found that money growth and inflation are very closely related. The statement thus tells how the world is, and so it is a positive statement.

b. The statement that the Federal Reserve should reduce the rate of money growth is a normative statement. It states an opinion about something that should be done, not how the world is.

c. The statement that society ought to require welfare recipients to look for jobs is a normative statement. It does not state a fact about how the world is. Instead, it is a statement of how the world should be and is thus a normative statement.

d. The statement that lower tax rates encourage more work and more saving is a positive statement. Economists have studied the relationship between tax rates and work, as well as the relationship between tax rates and saving. They have found a negative relationship in both cases. So the statement reflects how the world is and is thus a positive statement.

2.

<table>
<thead>
<tr>
<th>One month</th>
<th>tables</th>
<th>chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mike</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Sandy</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunity cost</th>
<th>1 table</th>
<th>1 chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mike</td>
<td>5 chairs</td>
<td>1/5 tables</td>
</tr>
<tr>
<td>Sandy</td>
<td>3 chairs</td>
<td>1/3 tables</td>
</tr>
</tbody>
</table>

a. absolute advantage in making tables : Sandy
   comparative advantage in making chairs : Mike

b. Mike will trade away chairs in exchange for tables

c. The price of tables : 3 ~ 5 chairs
   The price of chairs : 1/5 ~ 1/3 tables
3. Technological advances that reduce the cost of producing computer chips represent a decline in an input price for producing a computer. The result is a shift to the right in the supply of computers, as shown in Figure 19. The equilibrium price falls and the equilibrium quantity rises, as the figure shows.

![Figure 19](image)

Because computer software is a complement to computers, the lower equilibrium price of computers increases the demand for software. As Figure 20 shows, the result is a rise in both the equilibrium price and quantity of software.

![Figure 20](image)

Because typewriters are substitutes for computers, the lower equilibrium price of computers reduces the demand for typewriters. As Figure 21 shows, the result is a decline in both the equilibrium price and quantity of typewriters.
4.
In order to determine whether you should raise or lower the price of admissions, you need to know if the demand is elastic or inelastic. If demand is elastic, a decline in the price of admissions will increase total revenue. If demand is inelastic, an increase in the price of admissions will cause total revenue to rise.

a. The mayor thinks demand is inelastic.
b. The city manager thinks demand is elastic.

5.

a.
It does not matter whether the tax is imposed on producers or consumers—the effect will be the same. With no tax, as shown in Figure 7, the demand curve is $D_1$, and the supply curve is $S_1$. If the tax is imposed on producers, the supply curve shifts up by the amount of the tax (50 cents) to $S_2$. Then the equilibrium quantity is $Q_2$, the price paid by consumers is $P_2$, and the price received (after taxes are paid) by producers is $P_1 - 50$ cents. If the tax is instead imposed on consumers, the demand curve shifts down by the amount of the tax (50 cents) to $D_2$. The downward shift in the demand curve (when the tax is imposed on consumers) is exactly the same magnitude as the upward shift in the supply curve when the tax is imposed on producers. So again, the equilibrium quantity is $Q_2$, the price paid by consumers is $P_2$ (including the tax paid to the government), and the price received by producers is $P_1 - 50$ cents.
b.

The more elastic the demand curve is, the more effective this tax will be in reducing the quantity of gasoline consumed. Greater elasticity of demand means that quantity falls more in response to the rise in the price of gasoline. Figure 8 illustrates this result. Demand curve $D_1$ represents an elastic demand curve, while demand curve $D_2$ is more inelastic. The tax will cause a greater decline in the quantity sold when demand is elastic.