To answer the next 4 questions, consider the information below describing the number of windows that can be installed per week for various numbers of workers.

<table>
<thead>
<tr>
<th>Number of workers</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of windows</td>
<td>0</td>
<td>18</td>
<td>34</td>
<td>48</td>
<td>58</td>
<td>65</td>
<td>68</td>
</tr>
</tbody>
</table>

Suppose that the firm can sell window installations for $30 each.

1. What is the **marginal product** of the 3rd worker?

2. What is the **marginal revenue product** of the 3rd worker?

3. If the wage rate is $200 per week, what is the profit maximizing number of workers that this firm should hire?

4. If the wage rate is $200 per week, this firm’s profits would (increase, decrease) by $______ if the number of workers increased from 4 to 5.

5. If the price of window installations drops to $25 per week and the wage rate remains at $200, what is the profit maximizing number of workers?
6. When the wage rate increases, the income effect of the wage increase will tend to make people work (more, less) hours and the substitution effect will tend to make them work (more, less) hours.
   a. more; more.    b. more; less.    c. less; more.    d. less; less

7. The income effect of a wage increase is generally larger for people who work (many, few) hours.
   a. many    b. few

8. Given the theory of compensating differences, we should expect that if college tuition costs increase,
   a. the supply of college graduates will shrink and the difference between the wages of college and high school graduates will increase.
   b. the supply of college graduates will shrink and the difference between the wages of college and high school graduates will decrease.
   c. the demand for college graduates will shrink and the difference between the wages of college and high school graduates will increase.
   d. the demand for college graduates will increase and the difference between the wages of college and high school graduates will increase.

9. Labor demand is more inelastic if:
   a. labor is a larger share of total production costs.
   b. it is difficult to substitute capital for labor.
   c. the demand for the product produced is more elastic.
   d. all of the above.

10. Unions will generally be more successful in raising wages if:
    a. labor is a larger share of total production costs.
    b. it is easier to substitute capital for labor.
    c. the demand for the product produced is more inelastic.
    d. all of the above.

11. An increase in the minimum wage will cause more lay-offs in industries where:
    a. it is easier to substitute capital for labor.
    b. the demand for the product being produced is more elastic.
    c. labor represents a larger share of total cost.
    d. all of the above.
12. During the 1980s, the earnings of high school graduates (fell, rose) relative to college graduates. According to the evidence discussed in class, this was caused primarily by ___.
   a. fell; a greater increase in the supply of labor among high school graduates than college graduates.
   b. fell; a decrease in the demand for high school graduates and an increase in demand for college graduates.
   c. rose; a smaller increase in the supply of labor among high school graduates than college graduates.
   d. rose; an increase in the demand for high school graduates and a decrease in demand for college graduates.

13. During the 1980s, there was a change in the earnings of high school graduates relative to college graduates. One explanation for this change was:
   a. technological change that increased the demand for high skill workers.
   b. decreases in the number of immigrants allowed into the country.
   c. decreases in the amount of goods imported into the U.S.
   d. increases in the minimum wage.

14. If the Lorenz curve shifts up and to the left:
   a. income inequality falls and the Gini coefficient rises.
   b. income inequality falls and the Gini coefficient falls.
   c. income inequality rises and the Gini coefficient rises.
   d. income inequality rises and the Gini coefficient falls.

15. Compared to income, wealth is distributed
   a. more equally       b. less equally.

16. If there is perfect equality in the income distribution, the Gini coefficient will equal ____.

17. Over the past 20 years, poverty rates ____ among people over age 65 and ___ among children.
   a. fell; fell.      b. fell; rose  c. rose; rose.  d. rose; fell.

18. In the Social Security system, if Mary earns twice as much as Larry and pays twice as much in Social Security taxes, Mary will receive a Social Security benefit that is:
   a. twice as large as Larry’s benefit.
   b. more than twice as large Larry’s benefit.
   c. not the same but less than twice as large as Larry’s benefit.
   d. the same as Larry’s benefit.

19. Since 1980, income inequality in the U.S.:
   a. fell              b. rose.
20. It is well-established that, on average, whites earn more than blacks; and men earn more than women. In explaining these differences, which of the following is true?
   a. differences in occupation explain a larger share of the earnings gap between men and women than between whites and blacks.
   b. differences in occupation explain a smaller share of the earnings gap between men and women than between whites and blacks.
   c. differences in education explain a larger share of the earnings gap between men and women than between whites and blacks.
   d. a and c.

ANSWERS

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>14</th>
<th>11</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>420</td>
<td>12</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>13</td>
<td>a</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>increase 10</td>
<td>14</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>15</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>c</td>
<td>16</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>a</td>
<td>17</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>a</td>
<td>18</td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>b</td>
<td>19</td>
<td>b</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>c</td>
<td>20</td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>