Suppose the variable Y is affected by the variable X, which is captured by the following equation: 
\[ Y = a + bX. \]
Suppose we believe that when X is zero, Y is positive; and when X increases, Y increases. This would be captured by which one of the following:

A. \( a > 0, b = 0 \)
B. \( a > 0, b < 0 \)
C. \( a > 0, b > 0 \)
D. None of the above

Assume a household would consume $100 worth of goods and services per week if its weekly income were zero and would spend an additional $80 per week for each $100 of additional income. Letting C represent consumption and Y represent income, the equation which summarizes this relationship is:

A. \( C = 80 + 100Y \)
B. \( C = 100 + .8Y \)
C. \( C = 100 + 80Y \)
D. \( C = 80 + .1Y \)

Use the following information to answer questions (3) and (4):

Consider the following data relating per capita beer consumption (Y) to advertising expenditures of beer companies (X):

<table>
<thead>
<tr>
<th>Y</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>34</td>
<td>7</td>
</tr>
</tbody>
</table>

[3] Placing Y on the vertical axis and X on the horizontal axis, the graph corresponding to this data will be linear.

A. True
B. False

[4] According to the table, when X increases from 1 to 3, Y increases from 10 to 18. The slope of the line which connects these two X-Y points equals:

\[ \frac{\Delta Y}{\Delta X} = \frac{8}{2} = 4 \]

A. 8
B. 4
C. 1/8
D. 0

[5] ________ addresses economy-wide issues, such as unemployment and inflation.

A. Macroeconomics
B. Microeconomics
Use the following equation to answer questions (6) and (7): \( Y = 1000 + 3X - 4Z \)

[6]  Holding \( Z \) constant at 100, the value of the y-intercept equals:

A. 1000  
B. 800  
C. 600  
D. 300

\[ Y = 1000 + 3X - 4(100) \]

\[ = 600 + 3X \]

\[ Y \text{-intercept} \]

[7]  The curve relating \( Y \) and \( X \) (with \( Y \) on the vertical axis and \( X \) on the horizontal axis) will:

A. shift upwards when \( Z \) increases.  
B. shift downwards when \( Z \) increases.  
C. not shift when \( Z \) increases.  
D. tilt (i.e., the slope changes) when \( Z \) increases.

Use the following to answer questions (8) and (9): Suppose the relationship between the infant mortality rate (IM) and public healthcare spending (H) is illustrated by the curve to the right (with the dashed line being tangent to the curve at point A):

[8]  At point A, the slope of the curve approximately equals:

\[ \text{Slope of tangent line} \]

A. -1.20  
B. -100  
C. -0.83  
D. -0.20

\[ \text{Slope} = \frac{-100}{120} \approx -0.83 \]

[9]  In absolute value, the slope of the curve at point B is greater than the slope of the curve at point A.

A. True  
B. False

\[ \text{See P. 7 of Notes} \]

[10]  Suppose someone says "Rather than the government spend money to stimulate the economy, it should instead reduce everyone's taxes, since it is best to let individuals decide how to spend money, rather than have the government make this decision for them.” Such a statement is a ______ statement.

A. normative  
B. positive
Use the following equation to answer questions (1) and (2): \( Y = 200 + 4X + 3Z \)

[1]  Holding \( Z \) constant at 200, the value of the y-intercept equals:

A. 1000  
B. 800  
C. 600  
D. 300

[2]  The curve relating \( Y \) and \( X \) (with \( Y \) on the vertical axis and \( X \) on the horizontal axis) will:

A. shift upwards when \( Z \) increases.  
B. shift downwards when \( Z \) increases.  
C. not shift when \( Z \) increases.  
D. tilt (i.e., the slope changes) when \( Z \) increases.

Use the following to answer questions (3) and (4): Suppose the relationship between the infant mortality rate (IM) and public healthcare spending (H) is illustrated by the curve to the right (with the dashed line being tangent to the curve at point A):

[3]  At point A, the slope of the curve approximately equals:

A. -1.20  
B. -100  
C. -0.83  
D. -0.20

[4]  In absolute value, the slope of the curve at point B is less than the slope of the curve at point A.

A. True  
B. False

[5]  Suppose someone says “Rather than the government spend money to stimulate the economy, it should instead reduce everyone’s taxes, since it is best to let individuals decide how to spend money, rather than have the government make this decision for them.” Such a statement is a _______ statement.

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[10] addresses economy-wide issues, such as unemployment and inflation.

A. Macroeconomics
B. Microeconomics