Formative Assessment Items

1) $n$ is a whole number greater than 0 and less than 5. How many values of $3n$ can there be?

A  0  
B  3 (m)  
C  4*  
D  5  

2) $m$ is a positive whole number. How many possible values can $10m$ have?

A  5  
B  10 (m)  
C  20  
D  Infinitely many*  

3) Simplify $3m + 5 - 2m + 1$.

A  7 (m)  
B  10  
C  $m + 6$ *  
D  $7m + 8$  

4) In the expression $t + 4$, what does $t$ represent?

A  10  
B  20  
C  time (m)  
D  Any number *  

5) At a university, there are six times as many students as professors. This fact is represented by the equation $S = 6P$. In this equation, what does the letter $S$ stand for?

A  number of students*  
B  professors  
C  students (m)  
D  none of the above
6) Latoya and Keith dropped a ball from various heights and measured the height of each of the bounces. They recorded their data in the chart below.

<table>
<thead>
<tr>
<th>Height from which ball was dropped ((d))</th>
<th>40 in.</th>
<th>50 in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of each bounce ((b))</td>
<td>20 in.</td>
<td>25 in.</td>
</tr>
</tbody>
</table>

Which equation best shows the relationship between the height from which the ball was dropped and the height of the ball’s bounce?

A \(hb = hd + 20\) (m)  
B \(b = 2d\)  
C \(b = d + 30\)  
D \(b = \frac{1}{2}d\) *

7) How many different values can the expression \(k + 8\) have if \(k\) can be replaced by any number?

A One (m)  
B Infinitely many*  
C Eighty  
D Zero

8) Trees are cut and new ones are planted. The data are shown below.

<table>
<thead>
<tr>
<th>Number of Trees Planted ((p))</th>
<th>Number of Trees Cut ((c))</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Which equation that will allow you to predict the number of trees planted \((p)\) given the number of trees cut \((c)\)?

A \(c = 2p\)*  
B \(c = p + 3\) (m)  
C \(c = 4p\)  
D \(c = 2p + 100\)
9) Rita put some hummingbird feeders in her backyard. The table shows the number of hummingbirds that Rita saw compared to the number of feeders.

<table>
<thead>
<tr>
<th>Number of Feeders $(f)$</th>
<th>Number of Hummingbirds $(h)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

Which equation best describes the relationship between $h$, the number of hummingbirds, and $f$, the number of feeders?

A $h = 11f$
B $h = 2f + 1^*$
C $h = f + 2$ (m)
D $h = f + 6$