CSC141, Computer Science I  Exercise 3

Name__________________________ Student Number_____________________

Select the correct expression for the following calculation.

1. 32 divided by 7
   ( )
   (a) 32 divided by 7     (b) 32\(\div\)7     (c) \(\frac{32}{7}\)     (d) 32/7

2. 3 times the value of variable a
   ( )
   (a) 3 times a     (b) 3•a     (c) 3xa     (d) 3a     (e) 3*a

3. 3%
   ( )
   (a) 3 percent     (b) 3%     (c) 3/100     (d) 3

4. when variable a has a positive value, its integer part will be
   ( )
   (a) (int a)     (b) int (a)     (c) int a     (d) (int) a     (e) a (int)

5. the price of a gallon of milk ($2.69) after 10% off
   ( )
   (a) 2.69 - 0.1     (b) 2.69 * 0.1     (c) 2.69 *0.9     (d) 2.69 – 2.69 * 10

Fill the blanks.

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
</tr>
</thead>
<tbody>
<tr>
<td>a=400;</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>b=100;</td>
<td>400</td>
<td>100</td>
</tr>
<tr>
<td>a=a-b;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a=a+a*20/100;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a=a-b;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a=a+a*20/100;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System.out.print (a-b);</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete the print statements for the expected result.

1 + 2 = ?     System.out.print(   )

12 - 3 * ( 2 + 7 / 3 ) = ?     System.out.print(   )

133 divided by 7 = ?     System.out.print(   )

59.99 x ( 1 + 13.5 %) = ?     System.out.print(   )
20,000 x (1 + 2.3%)^{20} = ? \quad \text{System.out.print(} \quad \text{)}

Program Design

1) Convert the following to Java code and be sure the declaration of the appropriate variables.
   Read 20 from keyboard and store it in the \textit{speed} variable.
   Read 10 from keyboard and store it in the \textit{time} variable.
   Multiply \textit{speed} by \textit{time} and store the result in the \textit{distance} variable.
   Display the contents of the \textit{distance} variable.

2) Convert the following to Java code and be sure the declaration of the appropriate variables.
   Read 172.5 from keyboard and store it in the \textit{force} variable.
   Read 27.5 from keyboard and store it in the \textit{area} variable.
   Divide \textit{force} by \textit{area} and store the result in the \textit{pressure} variable.
   Display the contents of the \textit{pressure} variable.