LAMC Junior Circle

November 4, 2012

Please print your name, first and last, in the space below.

First Name

Last Name

Quiz

<table>
<thead>
<tr>
<th>Pr #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
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</tbody>
</table>
Problem 1

5 pts

\[ 6 \pmod{5} \equiv \]

\[ -11 \pmod{5} \equiv \]

\[ 1,000,000 \pmod{5} \equiv \]

\[ 2 \times 4 \equiv \pmod{5} \]

\[ 3 \div 4 \equiv \pmod{5} \]

Problem 2

5 pts

One side of a compass’s pointer is supposed to show North, the opposite – South. Where on Earth would both sides show North?
Problem 3 5 pts

Draw the graph of the function

\[ y = x - 3 \]

on the grid below.
Problem 4  

5 pts

Draw the graph of the function

\[ y = |x - 3| \]

on the grid above.

Problem 5  

5 pts

Harry Potter has found a part of an old book of spells. The part begins with page 387. The last page number is made of the same digits, but in a different order. How many pages are there?