Trig. First Quiz
Aug 27, 2009 3 pts each.

Name Key

1. Use inequality notation to describe the set; m is bigger than 12, but not greater than 20.

$12 < m \leq 20$

2. Consider the expressions $|a-b|$ *and* $|a|-|b|$. Are these always equal, always unequal, or are both cases possible. Produce examples or a logical chain of reasoning to support your conclusion.

both

$|0-0| = |0|-|0|$

$a=2,\ b=3$

$|2-3| \neq |2|-|-3|$

$5 \neq -1$

3. Convert $2.\overline{609}$ to a fraction of the form $\frac{m}{n}$ where m and n are both integers.

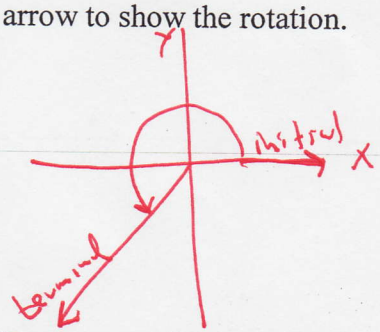
$1000x = 2609.\overline{609}$

$\ominus\ x = \ominus\ 2.\overline{609}$

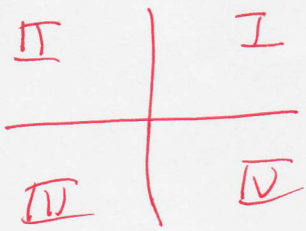
$999x = 2607$

$x = \frac{2607}{999} = \frac{869}{333}$

4. Draw a coordinate system, and within that coordinate system draw an angle whose measure is about 4 radians. Label the x and y axis, label the initial and terminal sides of the angle, use an arrow to show the rotation.



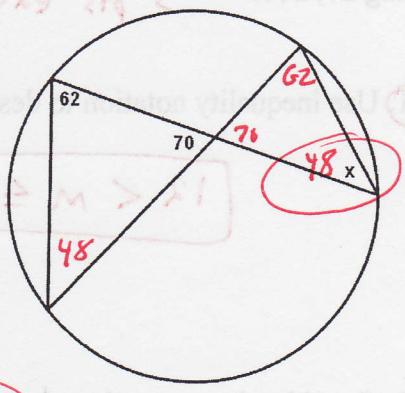
5. Draw a coordinate system and number the quadrants, use roman numerals, and number each of the four quadrants. Then tell in which quadrant an angle of 2.5 radians, drawn in standard position, will terminate.



2nd II

Bonus is on the back

Bonus. Find the measure of angle x in the diagram at the right.



$x = 48$