

**Math 206 - Quiz 8**

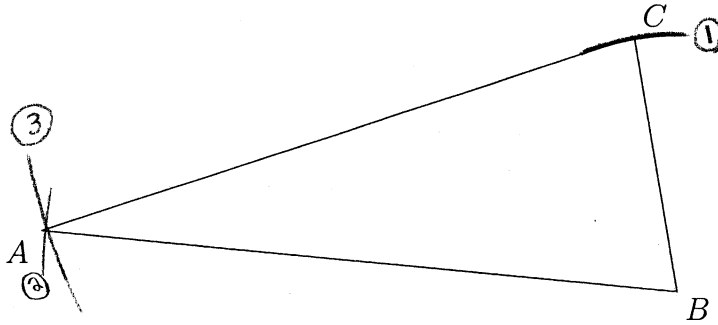
November 10, 2010

Name key

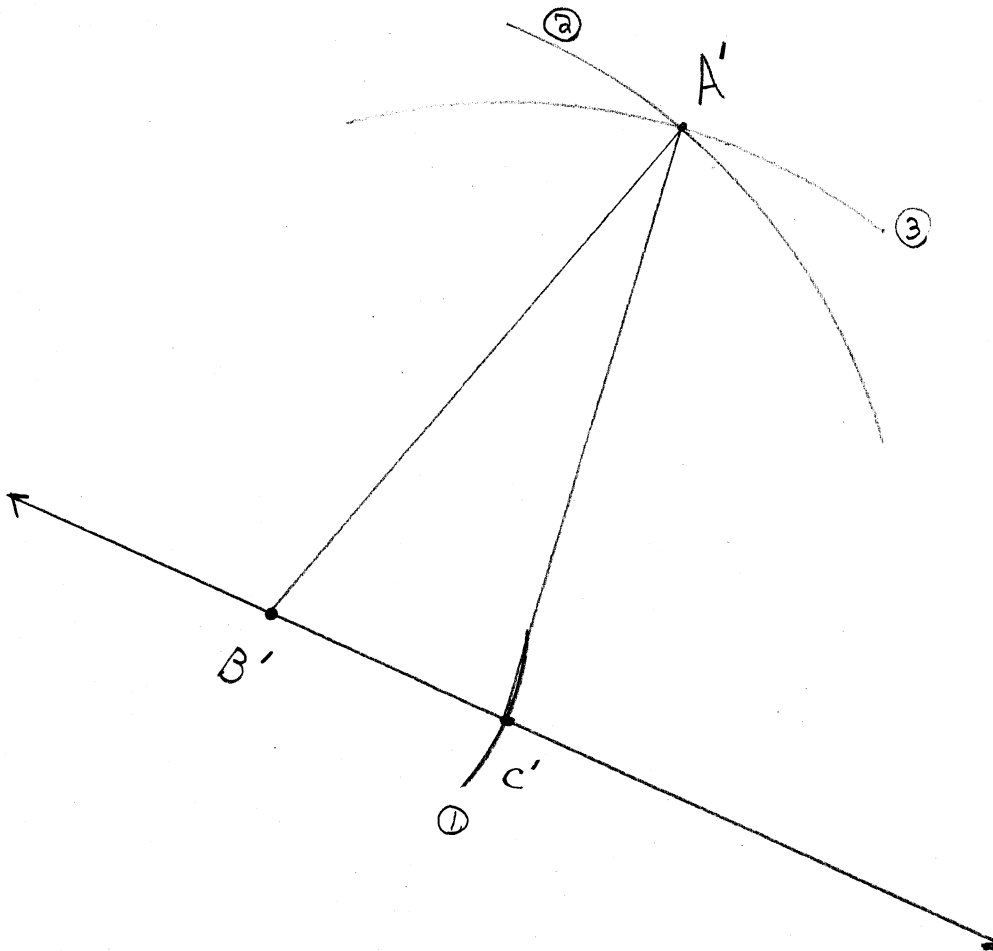
Score \_\_\_\_\_

Show all work to receive full credit. Supply explanations when necessary.

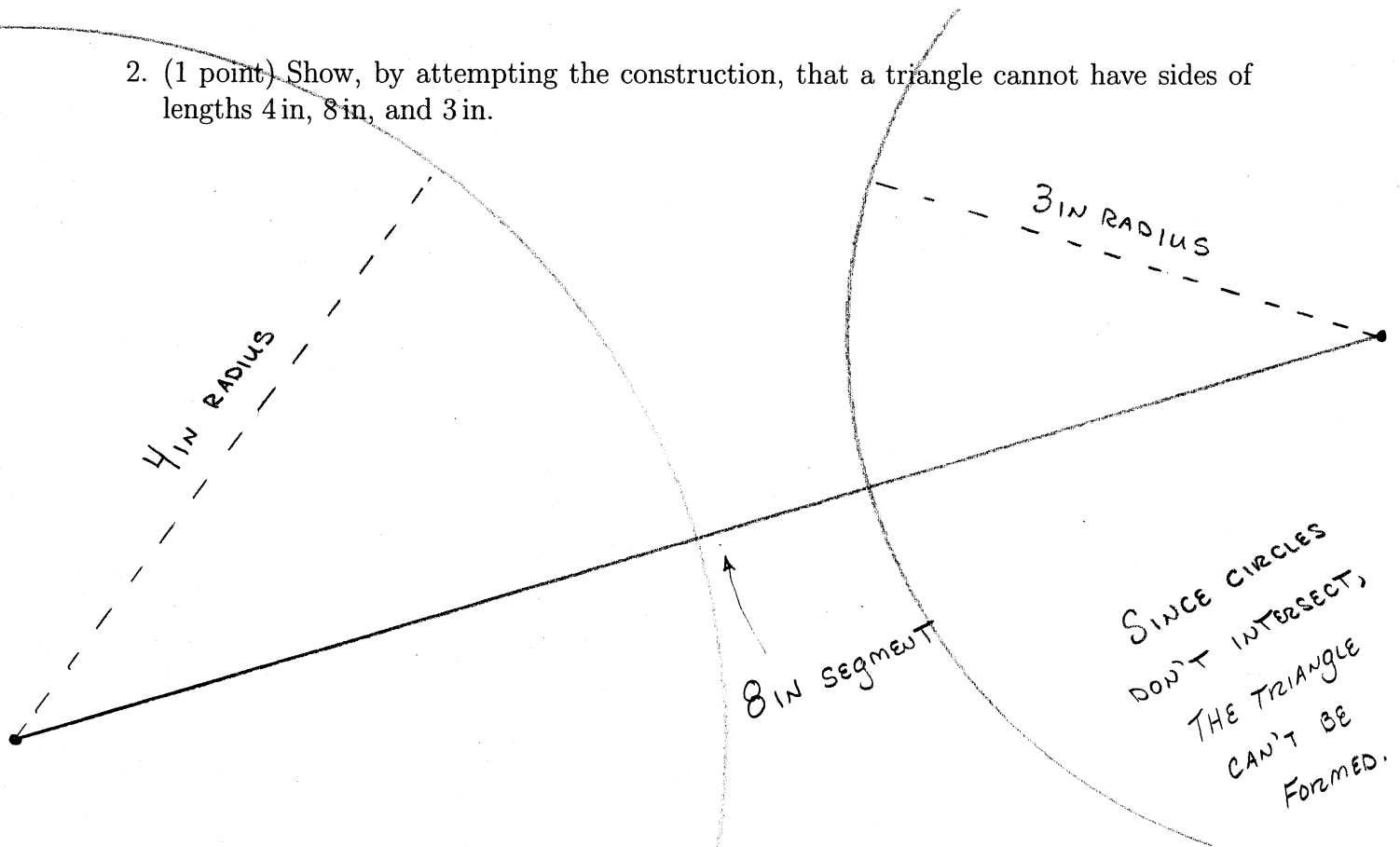
1. (1.5 points) Use a compass and straightedge to construct a triangle congruent to the one given below.



THIS IS AN SSS CONSTRUCTION...

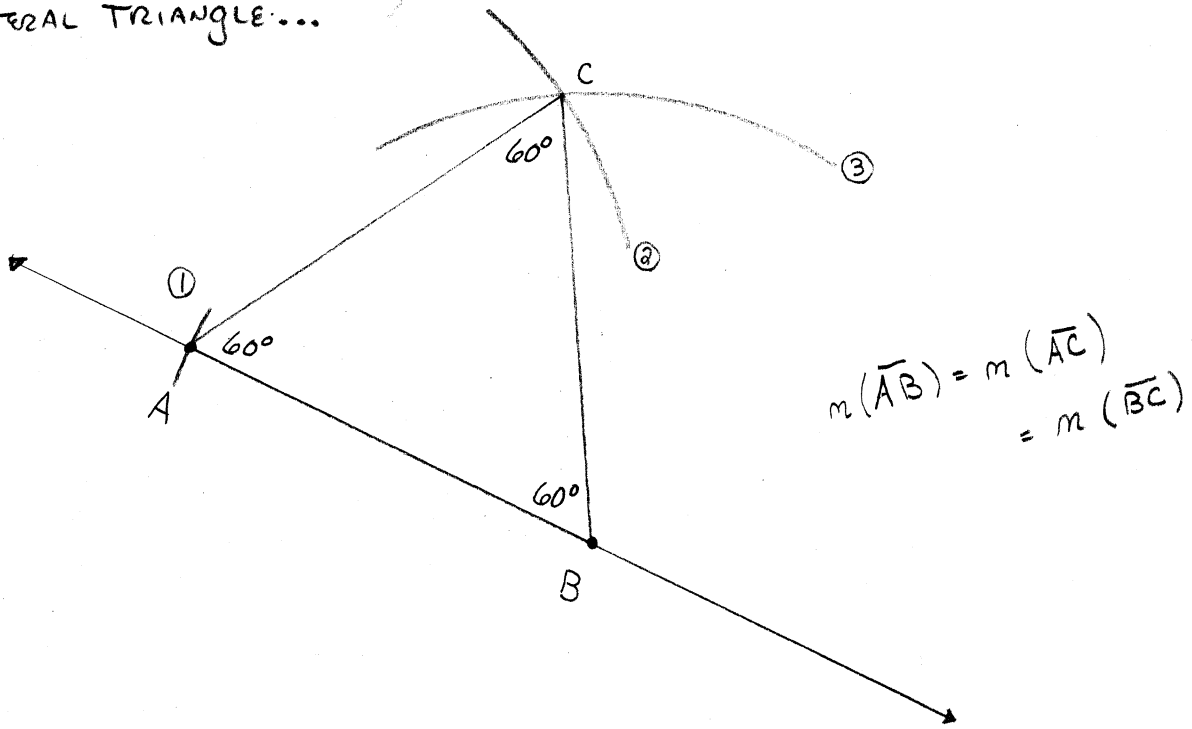


2. (1 point) Show, by attempting the construction, that a triangle cannot have sides of lengths 4 in, 8 in, and 3 in.



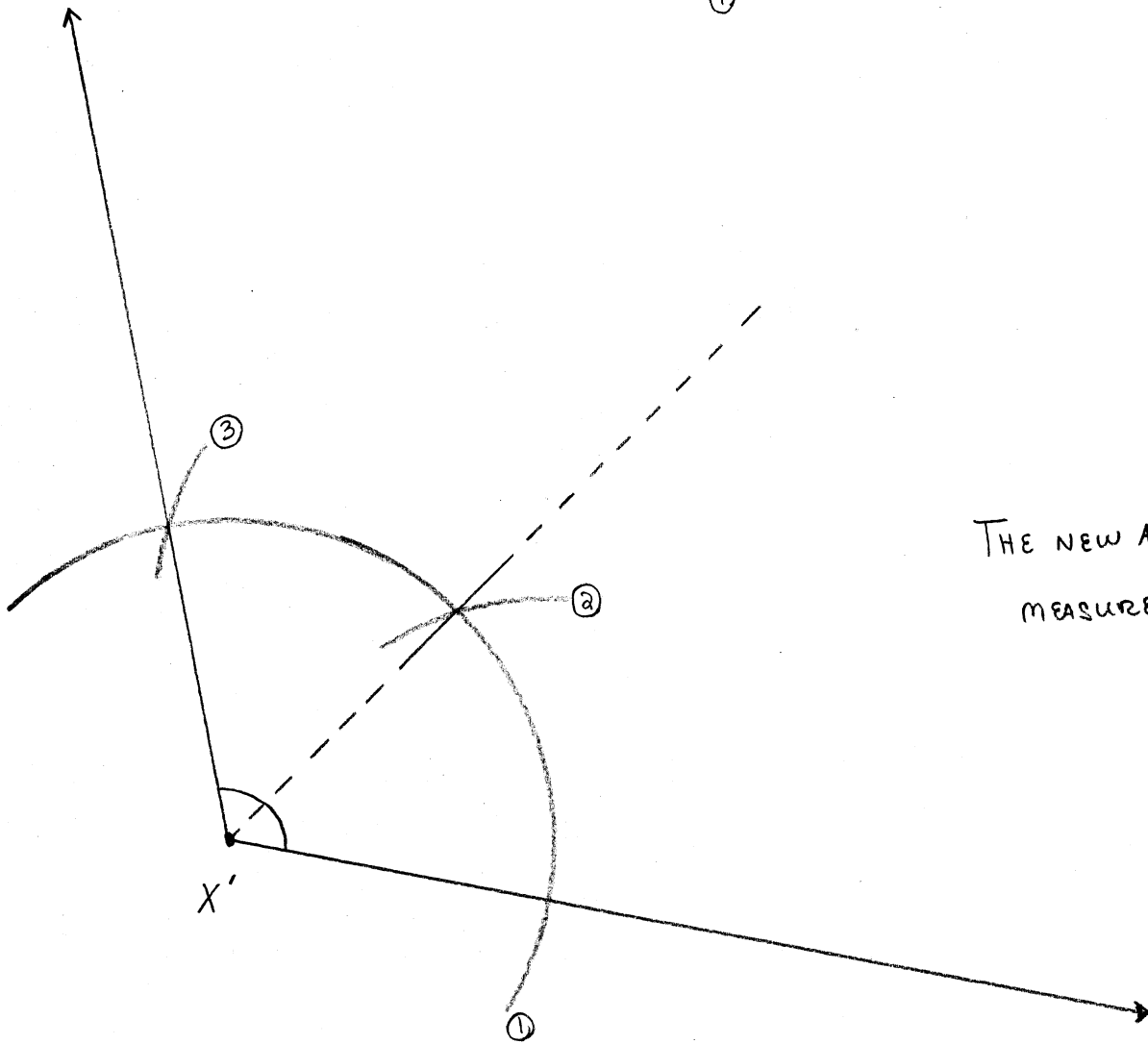
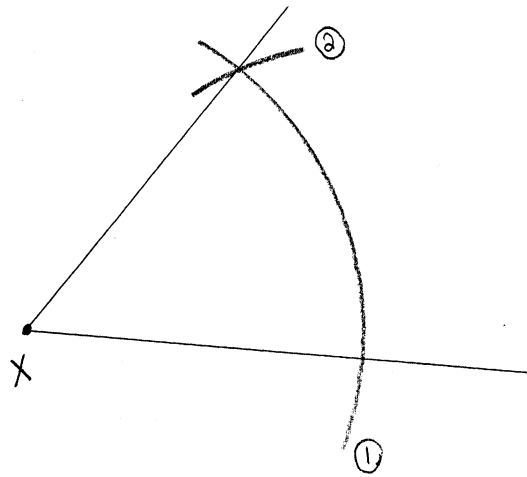
3. (1 point) Use only a compass and straightedge to construct an angle that measures  $60^\circ$ . (Hint: What kind of triangle has three  $60^\circ$  angles?)

CONSTRUCT AN EQUILATERAL TRIANGLE...



4. (1.5 points) Use only a compass and a straightedge to construct an angle whose measure is twice that of the angle shown below. Then use your protractor to measure the new angle.

Copy THE ANGLE  
TWICE...



THE NEW ANGLE  
MEASURES  $\approx 111^\circ$