

Math 206 - Quiz 10

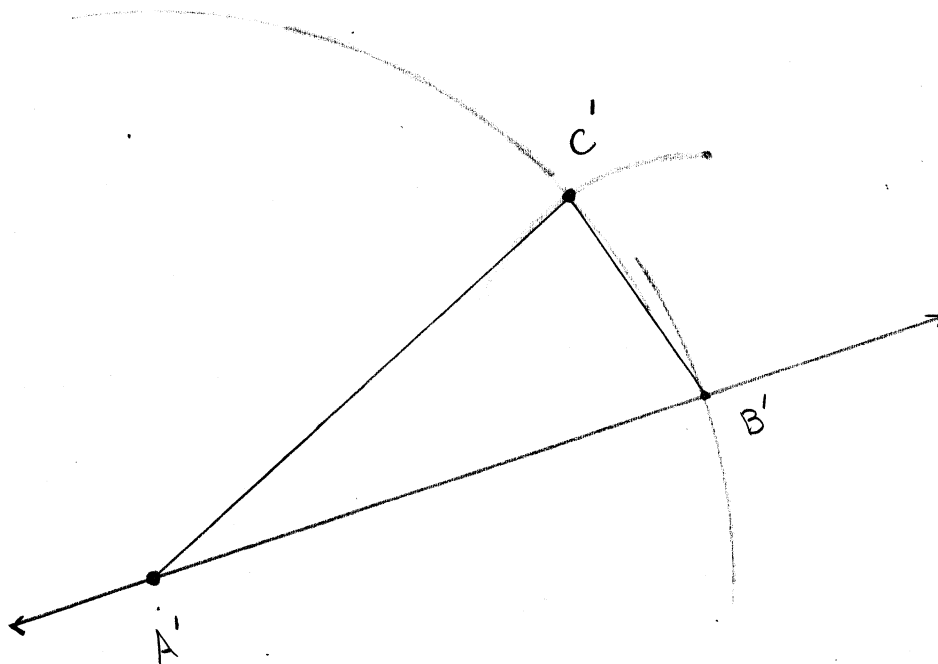
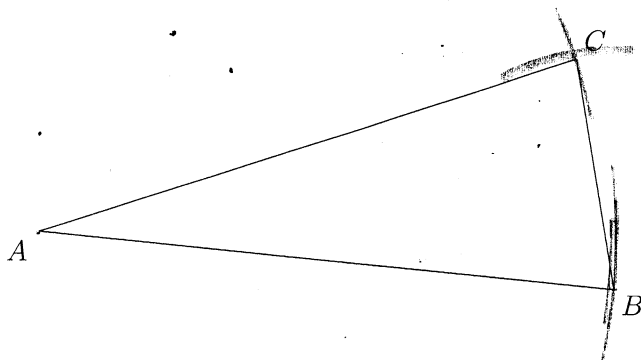
May 2, 2018

Name key

Score _____

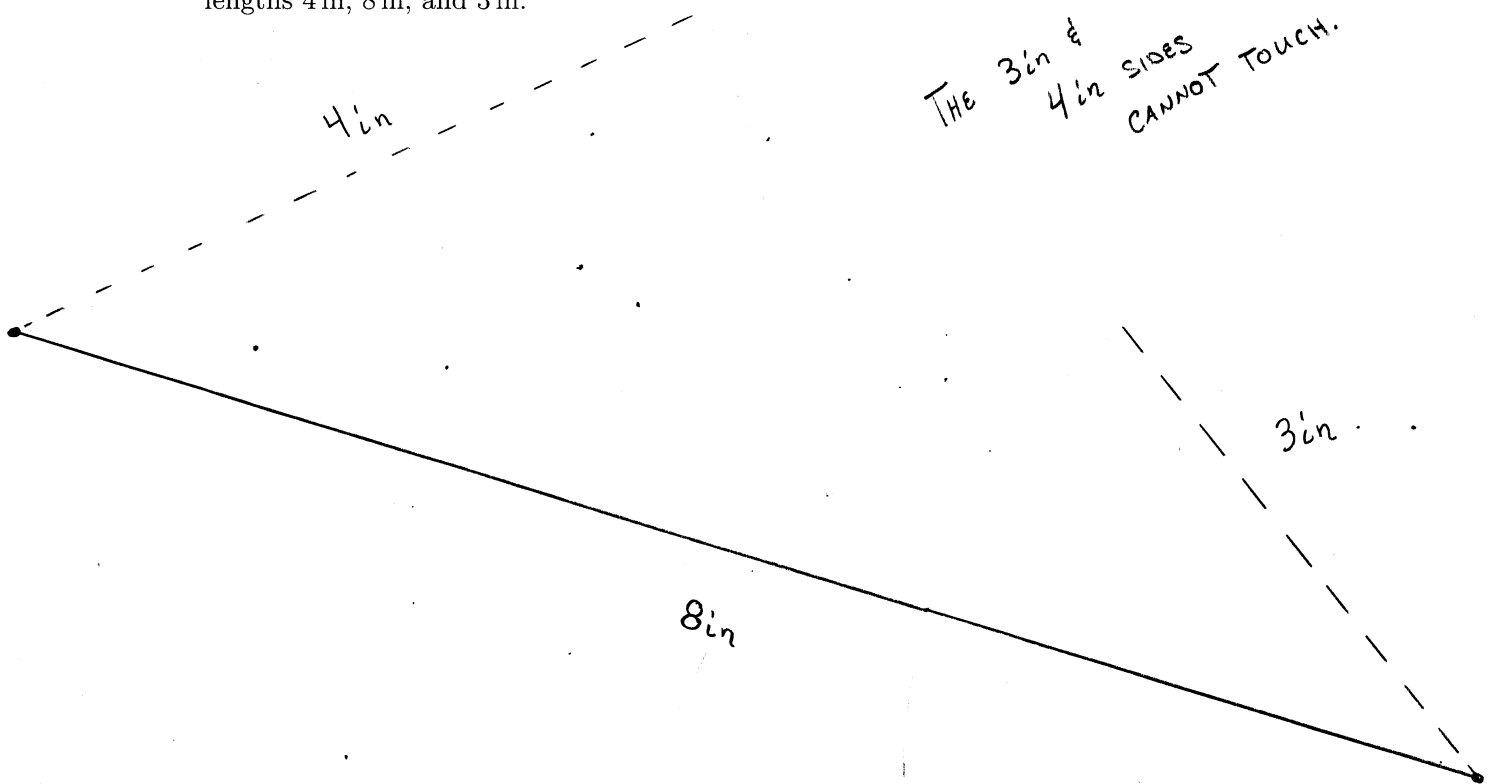
Show all work to receive full credit. Supply explanations when necessary.

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



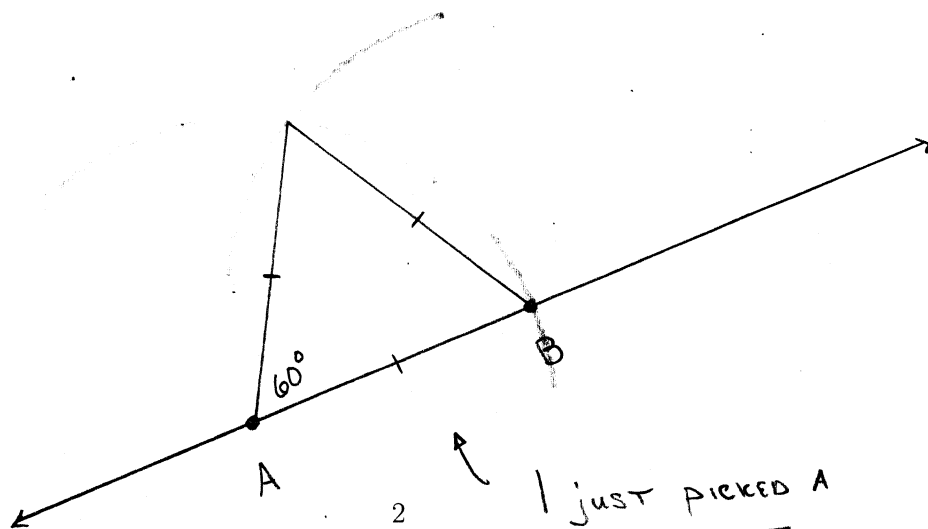
$$\triangle ABC \cong \triangle A'B'C'$$

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



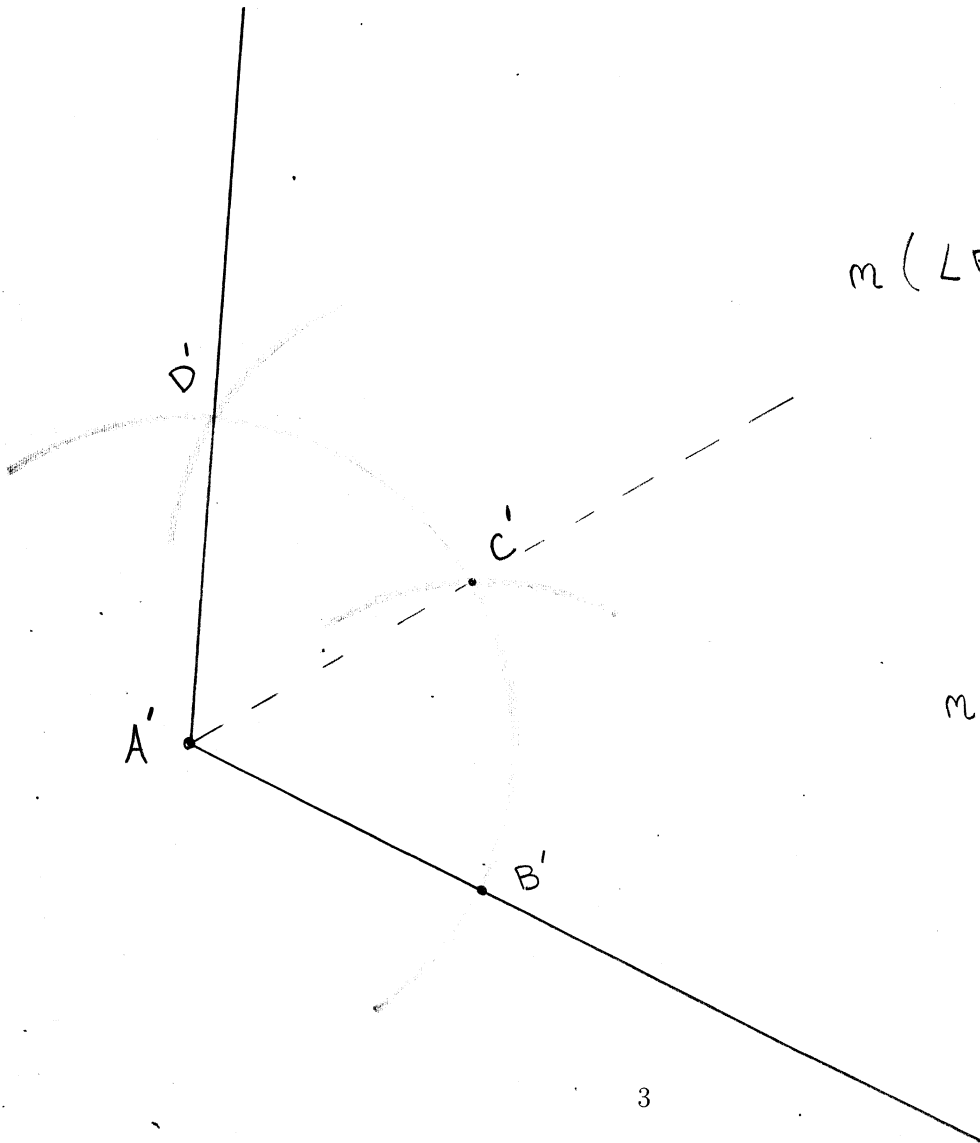
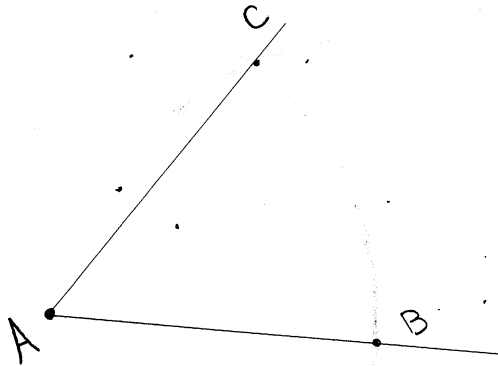
3. (1 point) Use only a compass and straightedge to construct an angle that measures 60° . (Hint: What kind of triangle has three 60° angles?)

EQUILATERAL Δ



I just picked a
LENGTH \overline{AB} , THEN
USED SSS TO CONSTRUCT
AN EQUILATERAL Δ .

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.



$$m(\angle B'A'D') = 2m(\angle BAC)$$

$$m(\angle B'A'D') \approx 112^\circ$$