Math 096 - Quiz 7
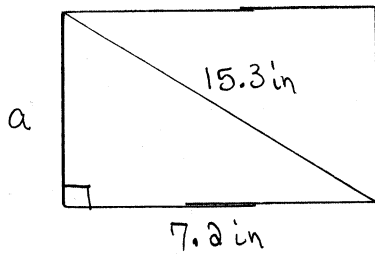
April 5, 2017

Name _key_

Score _____

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

1. (2.5 points) A rectangle is 7.2 in long and has a diagonal that measures 15.3 in. Find the width of the rectangle.
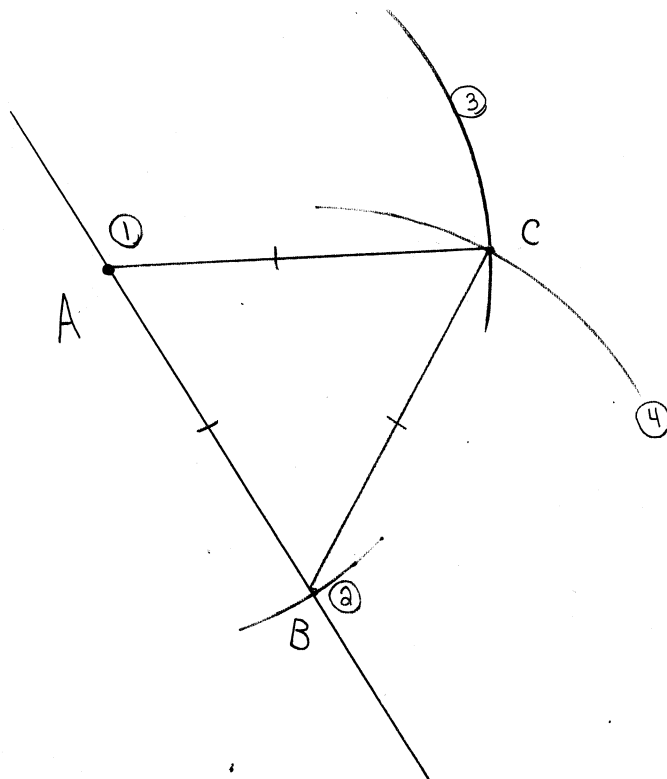

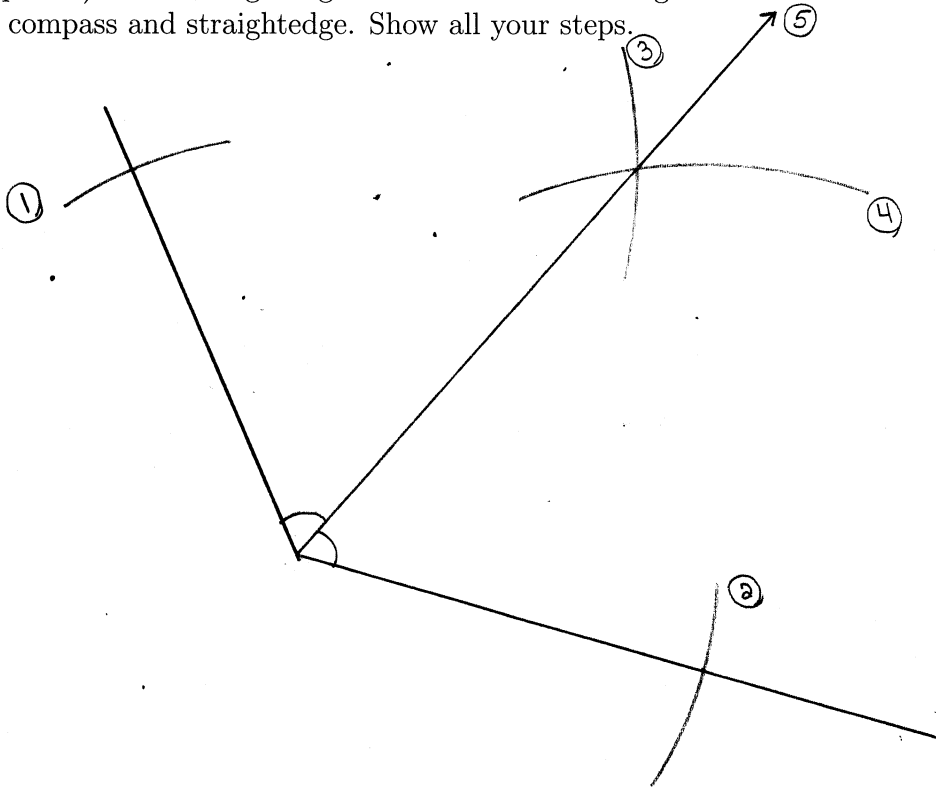$$a^2 + (7.2)^2 = (15.3)^2$$

$$a^2 = 234.09 - 51.84 = 182.25$$

$$\boxed{a = 13.5 \text{ in}}$$

2. (2.5 points) Use the SSS construction with only compass and straightedge to construct an equilateral triangle. Show all your steps.

$\triangle ABC$ IS EQUILATERAL.

3. (2.5 points) Use a straightedge to sketch an obtuse angle. Then bisect the angle using only compass and straightedge. Show all your steps.

4. (2.5 points) Use a straightedge to sketch a line segment. Then bisect the segment using only compass and straightedge. Show all your steps.

$\overline{AB}$ IS BISECTED