

LAMC Junior Circle

April 22, 2012

Oleg Gleizer

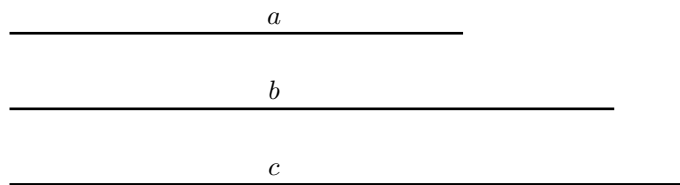
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**Basic Compass and Ruler Constructions.**

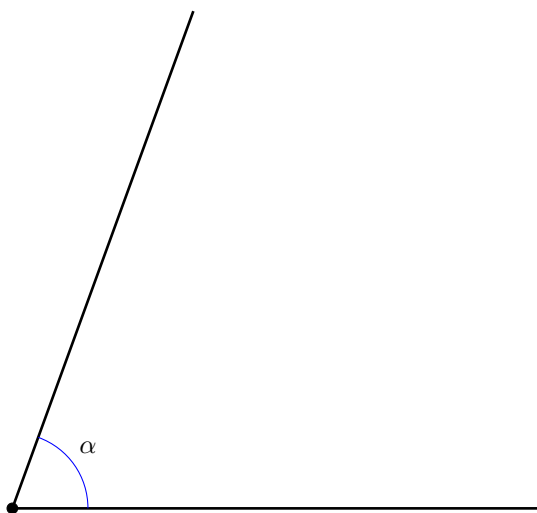
**Problem 1** *Draw a circumference of radius  $r = 1.5''$  centered at the point  $O$  below.*

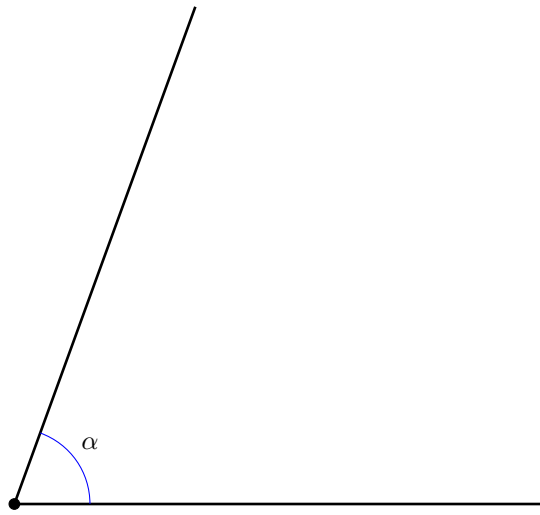
•  
 $O$

**Problem 2** *Use a compass and a ruler to construct a triangle having the following sides.*



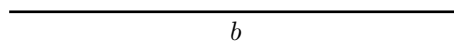
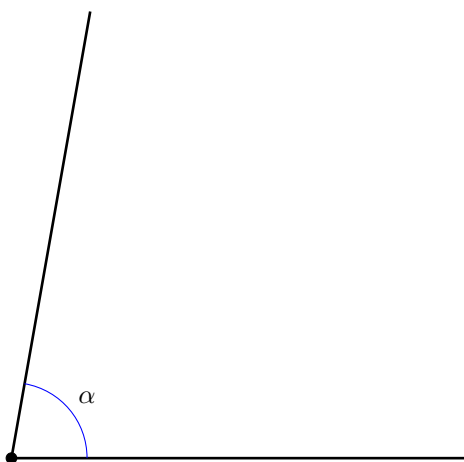
**Problem 3** *Using a compass and a ruler, construct an angle equal to the angle  $\alpha$  below in two different ways. Use an auxiliary triangle on this page and an auxiliary circumferences on the next one.*





A triangle is called *isosceles*, if it has two sides of equal length.

**Problem 4** *In the space at the bottom of the page, draw an isosceles triangle with the angle  $\alpha$  and adjacent sides of length  $|b|$  given below.*



**Problem 5** Draw a triangle with the side  $c$  and adjacent angles  $\alpha$  and  $\beta$  given below.

