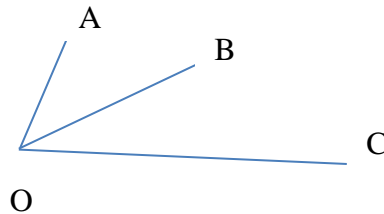


**MATH 4: HOMEWORK 10**  
**NOVEMBER 24, 2019**

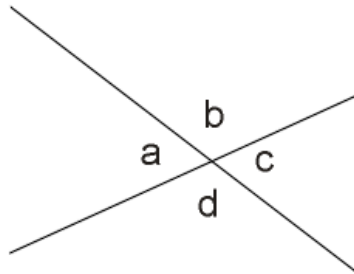


**Angles!**

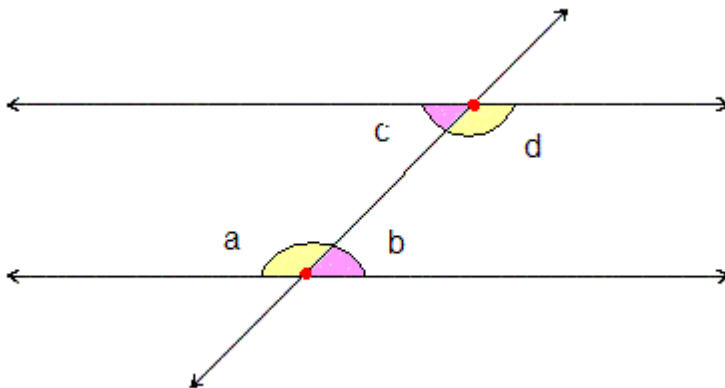
- Angles and their measurement. **Acute, right, obtuse** angles.
- **Perpendicular** lines: lines that form  $90^\circ$  angle.
- Addition rule for angles: if two angles are **adjacent** (have a common side), then their measures add up:  $\angle AOB + \angle BOC = \angle AOC$



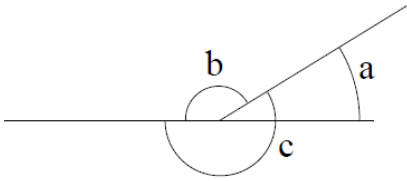
- Special angles: angles whose sum is  $90^\circ$  are called **complementary**, and angles whose sum is  $180^\circ$  are called **supplementary**.
- Using a ruler draw a picture similar to the one below and prove that opposite angles are the same. Use the knowledge that straight angle is  $180^\circ$ .



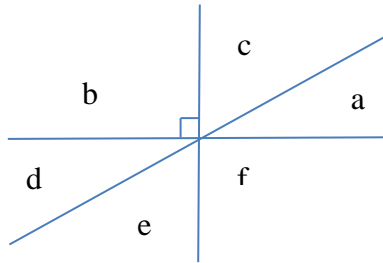
- **Interior** angles **Alternate** angles:



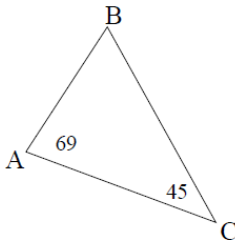
1. In the figure below,  $\angle a = 30^\circ$ . How large are two other angles?



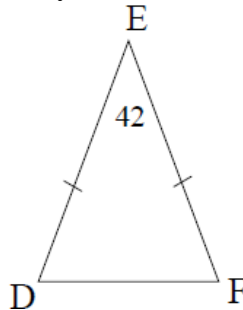
2. In the figure below,  $\angle a = 30^\circ$  and  $\angle b$  is the right angle. Can you find the sizes of all other angles in the figure?



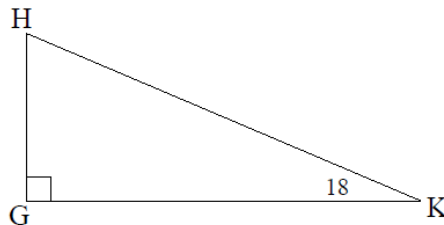
3. Find the unknown angles. The figures are not to scale, so don't try measuring angles with the protractor.  
(a) Find  $\angle ABC$ .



- (b) The triangle  $\triangle DEF$  is symmetric (isosceles):  $\angle EDF = \angle EFD$ . Find  $\angle EDF$ .



- (c) Find  $\angle GHK$ .



4. Do a very simple worksheet about equivalent fractions published at the classroom page.  
Attach the worksheet to your homework.