

Name: \_\_\_\_\_

MATH 307

Spring 2023

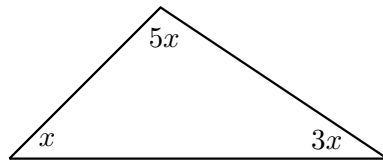
HW 9: Due 04/14

*"Poetry is as precise a thing as geometry."*

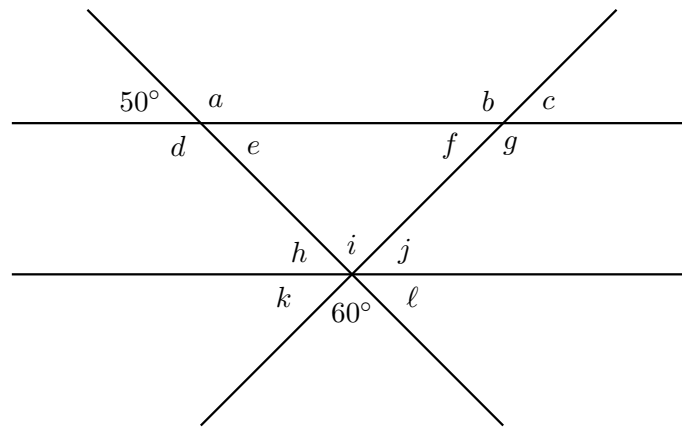
*– Gustave Flaubert*

**Problem 1.** (10pt) Showing all your work, complete the following:

- (a) Find the interior and exterior angles for a regular polygon with 22 sides.
- (b) Find the smallest angle between the hour and minute hand of an analog clock at 10:20.
- (c) Find  $x$  in the diagram below:



**Problem 2.** (10pt) Assuming that the two horizontal lines are parallel, find all the angles labeled in the diagram below:



**Problem 3.** (10pt) A student claims that all rectangles are always squares, rhombuses are never squares, and trapezoids are sometimes squares. Which, if any, of these statements are correct and which are incorrect? How would you help this student understand these concepts?