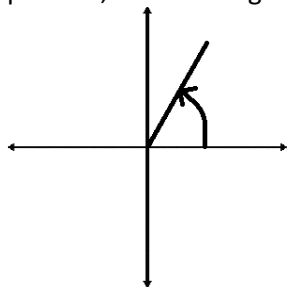


Lab 1: Angles and Their Measures

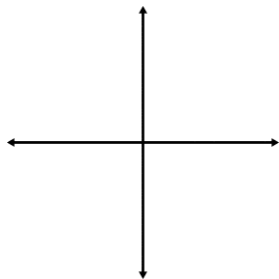
This lab is worth a total of 26 points. Make sure to show your work where requested for full credit.

Task 1 (4 pts): Suppose that the angle shown below has a measure of 53° . Using directional arrows like the one shown, draw two coterminal angles to this one (in standard position). One of them should be positive, and one negative. Indicate their measures (in degrees) as well.

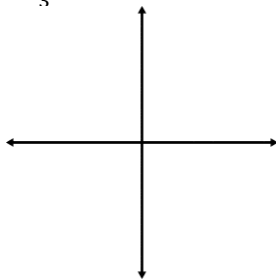


Task 2 (6 pts): Draw each of the indicated angles in standard position, using directional arrows as shown above. I want you to draw them *accurately*, so if you don't have a protractor, you can print one here: <http://www.ossmann.com/protractor/>.

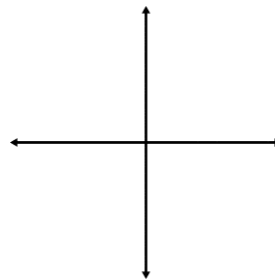
a) -135°



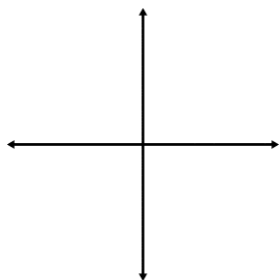
b) $\frac{\pi}{3}$ radians



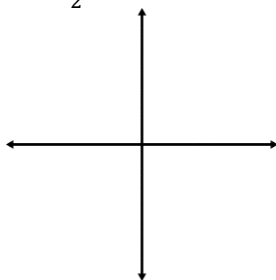
c) 300°



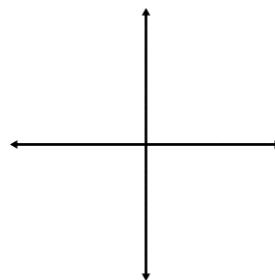
d) 480°



e) $-\frac{3\pi}{2}$ radians

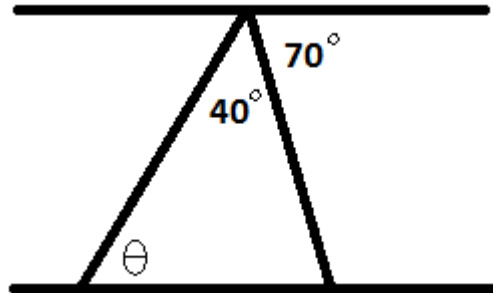
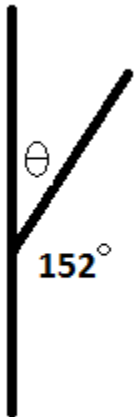
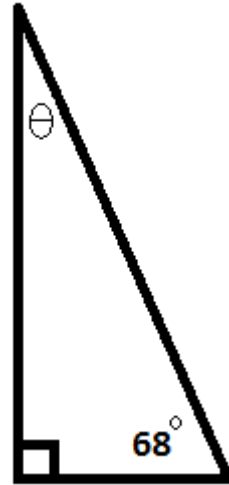
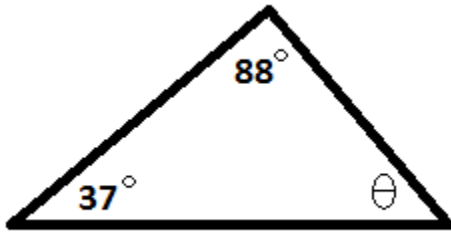


f) 5π radians



Task 3 (6 pts): Convert each of the measures in Task 2 into the other unit (degrees to radians, and radians to degrees), **showing your work**. Leave radian measures as fractions of π —don't use decimals.

Task 4 (10 pts): In each of the following diagrams, find the measure of the angle labeled θ (theta). Show all steps of your work clearly. Diagrams are not necessarily drawn to scale.



You may assume the top and bottom lines are parallel here

