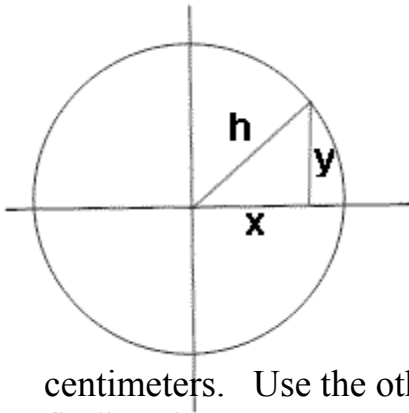


Using Grid Boards to Investigate Sine and Cosine Graphs

Name _____



Materials: 2 rulers, grid board, calculator

Description: Using one ruler, join the origin with the first degree mark on the circle and take the measurement in centimeters. You will not need to take this measurement again. Record this measurement

Place a ruler in the “y” position and read the “y” length in centimeters. Use the other ruler to obtain the “x” measurement in centimeters. Continue finding these measurements for the entire circle. Be careful to include the appropriate “sign”.

Quadrant I

Quadrant II

Positive x, y	x	y	y/x	y/h	x/h	h
15°						
30°						
45°						
60°						
75°						
90°						

Negative x	x	y	y/x	y/h	x/h	h
105°						
120°						
135°						
150°						
165°						
180°						

Quadrant III

Quadrant IV

Negative x, y	x	y	y/x	y/h	x/h	h
195°						
210°						
225°						
240°						
255°						
270°						

Negative y	x	y	y/x	y/h	x/h	h
285°						
300°						
315°						
330°						
345°						
360°						

Using an x -axis scale from 0° to 360° , prepare three separate graphs using your findings in columns y/x , y/h , and x/h .