

CALCULUS I — MONDAY HOMEWORK

1. A point $P(5, 12)$ lies on a circle centered at the origin.
 - a. Find r .
 - b. Find all six trigonometric functions.
2. A point $P(-8, 6)$ lies on the terminal side of θ .
 - a. Find r .
 - b. Determine the quadrant.
 - c. Find $\sin \theta$, $\cos \theta$, and $\tan \theta$.
3. A point $(x, -12)$ lies on a circle of radius 13.
 - a. Find the possible values of x .
 - b. Identify the possible quadrants.
4. State whether each trigonometric function is positive or negative.
 - a. $\sin \theta$ in Quadrant III
 - b. $\cos \theta$ in Quadrant II
 - c. $\tan \theta$ in Quadrant IV
 - d. $\sec \theta$ in Quadrant III
 - e. $\csc \theta$ in Quadrant II
5. Find the reference angle.
 - a. $2\pi/3$
 - b. $5\pi/6$
 - c. $7\pi/6$
 - d. $4\pi/3$
 - e. $5\pi/3$
 - f. $11\pi/6$

6. Use reference angles and quadrant signs to find each exact value.

a. $\sin(2\pi/3)$

b. $\cos(5\pi/6)$

c. $\tan(7\pi/6)$

d. $\sin(4\pi/3)$

e. $\cos(5\pi/3)$

f. $\tan(11\pi/6)$