Hand your completed quiz in before the due date. Do not forget to write down your name and student ID number. Marks will be awarded for this quiz based on the clarity of your answers. The marker will pay close attention to the logic of your answers. Please show all your working.

Q1. The point $P(x, y)$ is on the unit circle in Quadrant IV. If $x = \sqrt{11}/6$, find $y$.

Q2. The point $P$ in the following figure have $y$-coordinate $\frac{4}{5}$. Find

\[
\begin{array}{c}
\hline
-2 & -1 & 0 & 1 & 2 \\
\hline
-2 & -1 & 0 & 1 & 2 \\
\end{array}
\]

(a) $\sin(t)$.
(b) $\cos(t)$.
(c) $\tan(t)$.

Q3. Compute
(a) $\sin\left(\frac{7\pi}{6}\right)$.
(b) $\cos\left(\frac{13\pi}{4}\right)$.
(c) $\tan\left(\frac{-5\pi}{3}\right)$.

Q4. Sketch the graph of
(a) $y = -5\cos(4x)$.
(b) $y = 2\sin\left(\frac{1}{2}x - \frac{\pi}{2}\right)$.

Q5. The graph shown below is one period of a function of the form $y = a\sin(k(x - b))$. Three points in the graph are $(-\frac{\pi}{3}, 0)$, $(-\frac{\pi}{12}, 2)$, and $(\frac{2\pi}{3}, 0)$. Determine the function.