1. Which of the following four angles indicate the same point on the unit circle?

(a) $45^\circ$  
(b) $\frac{\pi}{4}$ radians  
(c) $-45^\circ$  
(d) $-\frac{7\pi}{4}$ radians

2. For some angle $\theta$, $\cos \theta = \frac{4}{5}$.

(a) What are the possible values of $\sin \theta$? [Hint: Do you know any useful identities?]
(b) What if we know that $\theta$ is located in the fourth quadrant (i.e., $\frac{3\pi}{2} \leq \theta \leq 2\pi$)?
3. Consider the function \( y = 3 \sin(\frac{x}{4}) + 1 \).

(a) What is its amplitude?
(b) What is its period?

4. Find a solution to the equation:

\[ 1 = 8 \tan(2x + 1) - 3 \]

Express your answer in exact form and also as a decimal approximation.
5. Find a possible formula for the function graphed in the window below.