1. State the reference angle. Then find the exact value or state that it is undefined.

(a) \( \tan \left( \frac{\pi}{4} \right) \)

(b) \( \sec \left( \frac{\pi}{6} \right) \)

(c) \( \csc \left( \frac{5\pi}{6} \right) \)

(d) \( \cot \left( \frac{4\pi}{3} \right) \)
2. Use the given the information to find the exact values of the remaining circular functions of \( \theta \):

\[
\tan(\theta) = \frac{12}{5} \text{ with } \theta \text{ in Quadrant III}
\]

3. Find all of the angles which satisfy the equation: \( \sec(\theta) = 2 \).

4. Find all angles which satisfy the equation \( \sqrt{3} \tan \theta = 1 \).