1. (3) Using transformations of the graph of \( g(x) \), describe how to obtain the graph of \( 5g(x + 2) + 4 \).
   Your description should clearly state all steps necessary to obtain the graph and should be written in complete, grammatically correct sentences.

2. (2) Find all the trigonometric ratios for \( \theta = \frac{4\pi}{3} \) radians.

3. (5) Find all values \( x \) in the interval \([0, 2\pi]\) that satisfy the equation
   
   (a) \( |\tan x| = 1 \)
   
   (b) \( 2(\cos x)^2 = 1 \)