

1. For each trig equation, find all solutions, and then list the solutions in the interval  $[0, 2\pi)$ .

a)  $\cos 2x = \sin x$

b)  $2 \cos \frac{x}{3} - \sqrt{2} = 0$

c)  $3 \tan x \sin^2 x - \tan x \sin x - 2 \tan x = 0$  (Hint: factor out a  $\tan x$  first, then factor further)

$$d) 2 \sin x = 1 - 2 \cos x$$

Q: What is the word that everybody always says wrong?