WORLD MISSION HIGH SCHOOL

L4 ALL (SOD, NIT AND MULTI-MEDIA)

MATHEMATICS ASSIGNMENT

ANSWER ALL QUESTIONS IN ALL POSSIBLE WAYS AND YOU WILL SUBMIT DRAFT PAPER

1. Solve the trigonometric equations:

g) $2\sin^2 x = \sqrt{2}\sin x$

s) $\sin x \cos x = \dfrac{1}{2}$

h) $\cot^2 x = -\cot x$

t) $\sin^2 x - \sin x = 0$

i) $\sin^2 x - \cos^2 x + \sin x = 0$

u) $2\cos^2 x = \sin^2 x - 1$

j) $2\tan x - 3\cot x = 1$

v) $\sin x + \cos x = \dfrac{1+\sqrt{3}}{2}$

k) $3\tan^2 x + 4\sqrt{3}\tan x + 3 = 0$

w) $3\tan x - 1 = 2\tan x$

l) $\sqrt{3}\cot^2 x - 2\cot x - \sqrt{3} = 0$

x) $\sin x + \sin 2x = \sin 3x$

2. Solve the irrational equations:

a) $2\sqrt{x+5} = x+2$

b) $4 + 2\sqrt{x-4} = x$

c) $x - 2\sqrt{x-6} = 6$

d) $\sqrt{4-x} = 3 - \sqrt{5+x}$

e) $5 + 2\sqrt{x-2} = x$

f) $2\sqrt{x-1} + \sqrt{4x-1} = \sqrt{3}$

g) $2 + \sqrt{x^2 - 4x + 4} = x$

h) $\sqrt{x+5} + \sqrt{2-x} = 0$