

~~Class Test A/B~~

No cell phones are used during Testing time.  
All working should be shown for full credit to be awarded.

1 a) In  $\triangle ABC$ ,  $\angle A = 50^\circ$ ,  $\angle B = 75^\circ$ ;  $a = 20$  cm  
Find side  $b$ .

(b) Prove the identity  $\frac{\cos x}{1 + \sin x} = \sec x - \tan x$ .

2 In a  $\triangle ABC$ ,  $a = 25$ ,  $b = 25$ ,  $c = 30^\circ$   
Find  $\angle B$  to the nearest tenth of a degree.

3(a) Without using a calculator evaluate the logarithm

a)  $\log_2 (8 \sqrt[3]{2})$

b)  $4^x = 13$ . Solve for  $x$  and round the

answer to the nearest tenth.

4. Solve the equations for  $x \in [0, 2\pi]$

a)  $2 \sin x = -\sqrt{3}$

b)  $2 \cos x = 1$ .