



# #01 SA Trigonometric Functions

Total points **5/5** ?

Name

.....





1/1

$$\cos(115^\circ) \cos(55^\circ) + \sin(115^\circ) \sin(55^\circ) =$$

$$-\frac{1}{2}$$

 Option 1

$$\frac{1}{2}$$

 Option 2

$$\frac{\sqrt{3}}{2}$$

 Option 3

$$-\frac{\sqrt{3}}{2}$$

 Option 4



$$\sin(5\pi/12) \cos(\pi/4) - \cos(5\pi/12) \sin(\pi/4) =$$

$$\frac{1}{2}$$

Option 1



$$-\frac{1}{2}$$

Option 2

$$-\frac{1}{\sqrt{2}}$$

Option 3

$$\frac{1}{\sqrt{2}}$$

Option 4





$\frac{\tan 45^\circ + \tan 30^\circ}{1 - \tan 45^\circ \tan 30^\circ}$  is equivalent to

$$\tan 15^\circ$$

Option 1

$$\tan 75^\circ$$

Option 2



$$\frac{\sin 45^\circ}{\cos 30^\circ}$$

Option 3

$$\frac{\cos 30^\circ}{\sin 45^\circ}$$

Option 4

Other:

.....





$$\frac{1 + \tan x}{1 - \tan x} =$$

$$\tan\left(\frac{\pi}{4} + x\right)$$

Option 1



$$\tan\left(\frac{\pi}{4} - x\right)$$

Option 2

None of the above

$$\tan\left(x - \frac{\pi}{4}\right)$$

Option 3





If  $\sin \alpha = \frac{5}{13}$  and  $\cos \beta = \frac{4}{5}$  ( $0 < \alpha, \beta < \frac{\pi}{2}$ ), then  $\tan(\alpha - \beta) =$

$$\frac{16}{63}$$

Option 1

$$-\frac{16}{63}$$

Option 2



$$\frac{63}{16}$$

Option 3

$$-\frac{63}{16}$$

Option 4

