

Name: \_\_\_\_\_

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**Q1.** Find the exact value of

a)  $\tan\left(\sin^{-1}\frac{2}{3} + \cos^{-1}\left(-\frac{3}{4}\right)\right)$

b)  $\sec^{-1}\left(\sec\frac{7\pi}{5}\right)$

**Q2.** Solve  $\sin^2 2x - \frac{\sqrt{3}}{2} \sin 2x + \sin 2x - \frac{\sqrt{3}}{2} = 0, 0^\circ \leq x < 360^\circ$

**Q3.** Find the direction angle of the vector  $v = \langle -3, -\sqrt{3} \rangle + 2i$