

Instructions: Five points total.

1. (2 pts.) Find, in both degrees and radians, the angle θ between the vectors
 $\mathbf{v} = \langle 2, 2 \rangle$ and $\mathbf{w} = \langle -1 - \sqrt{3}, \sqrt{3} - 1 \rangle$.

2. (3 pts.) Justify that the two planes

$$\begin{array}{ll} \text{Plane 1:} & y + 2z = 1 \\ \text{Plane 2:} & x + 3y - z = 3 \end{array}$$

are **NOT** parallel. Then find the equation of the line ℓ of intersection. (You can give your answer in either vector or parametric form.)