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1. (2 pts) Find the arc length of the polar curve $r(\theta) = 1 - \sin \theta$.

2. (2 pts) Find the angle that the vector $\vec{v} = -\sqrt{3} \, \hat{i} + \hat{j}$ makes with positive $x$-axis.

3. (6 pts) Consider the points $A(1, -1, 2), B(2, -3, 0), C(-1, -2, 0), D(2, 1, -1)$.
   (a) Find the area of the triangle $ABC$.
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