$$\vec{\mathbf{F}}_{\text{net}} = \vec{\mathbf{F}}_{\text{A}} + \vec{\mathbf{F}}_{\text{B}}$$

$$\vec{\mathbf{F}}_{\text{net}} = A\hat{\mathbf{i}} + \left(-1.41A\hat{\mathbf{i}} - 1.41A\hat{\mathbf{j}}\right)$$

$$\vec{\mathbf{F}}_{\text{net}} = -0.41A\hat{\mathbf{i}} - 1.41A\hat{\mathbf{j}} = A\left(-0.41\hat{\mathbf{i}} - 1.41\hat{\mathbf{j}}\right)$$

$$\theta = 180° + \arctan\left(\frac{1.41}{0.41}\right) = 254°$$