

Problems.

1. Find the measure of the angle between the given vector and the positive x -axis in radian between 0 and 2π , then sketch the unit vector in the direction of the given vector.

(a) $\langle -4, 3 \rangle$

(b) $-3\mathbf{i} - 4\mathbf{j}$

2. A hot air balloon 30 ft above the ground is tethered by three cables as shown in the diagram. If the balloon is pulling upwards with a force of 900 lb, what is the tension in each of the three cables? The grid lines on the ground plane are spaced 10 ft apart.

