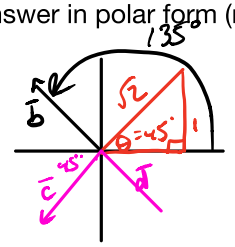
V2 - Component to Polar (Special Right Triangles)

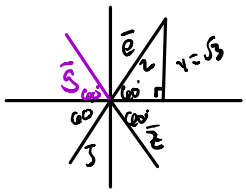
Given a vector in component form, find the vector's magnitude and direction (using an angle in standard position) and write the answer in polar form (magnitude, angle)

1. $\bar{a} = \langle 1, 1 \rangle$
$\bar{b} = \langle -1, 1 \rangle$
$\bar{c} = \langle -1, -1 \rangle$
$\bar{d} = \langle 1, -1 \rangle$



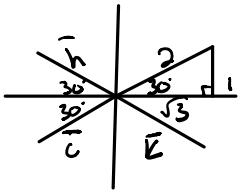
$\bar{a} = (\sqrt{2}, 45°)$
$\bar{b} = (\sqrt{2}, 135°)$
$\bar{c} = (\sqrt{2}, 225°)$
$\bar{d} = (\sqrt{2}, 315°)$

2. $\bar{e} = \langle 1, \sqrt{3} \rangle$
$\bar{g} = \langle -1, \sqrt{3} \rangle$
$\bar{j} = \langle -1, -\sqrt{3} \rangle$
$\bar{z} = \langle 1, -\sqrt{3} \rangle$



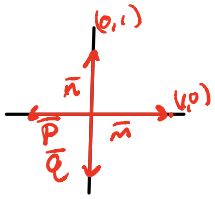
$\bar{e} = (2, 60°)$
$\bar{g} = (2, 120°)$
$\bar{j} = (2, 240°)$
$\bar{z} = (2, 300°)$

3. $\bar{f} = \langle \sqrt{3}, 1 \rangle$
$\bar{h} = \langle -\sqrt{3}, 1 \rangle$
$\bar{i} = \langle -\sqrt{3}, -1 \rangle$
$\bar{k} = \langle \sqrt{3}, -1 \rangle$



$\bar{f} = (2, 30°)$
$\bar{h} = (2, 150°)$
$\bar{i} = (2, 210°)$
$\bar{k} = (2, 330°)$

4. $\bar{m} = \langle 1, 0 \rangle$
$\bar{n} = \langle 0, 1 \rangle$
$\bar{p} = \langle -1, 0 \rangle$
$\bar{q} = \langle 0, -1 \rangle$



$\bar{m} = (1, 0°)$
$\bar{n} = (1, 90°)$
$\bar{p} = (1, 180°)$
$\bar{q} = (1, 270°)$