1-1)
A_x = 1.30 cm; Ay = 2.25 cm
B_x = 4.10 cm; B_y = -3.75 cm
a)
$(\mathbf{A} + \mathbf{B})_x = A_x + B_x = 1.30 + 4.10 =$ 5.40 cm
$(\mathbf{A} + \mathbf{B})_y = A_y + B_y = 2.25 + -3.75 =$ -1.50 cm
b)
$|\mathbf{A} + \mathbf{B}| = [(A_x + B_x)^2 + (A_y + B_y)^2]^{1/2} = [(5.40)^2 + (-1.50)^2]^{1/2} =$ 5.60 cm
$\theta_{\mathbf{A}+\mathbf{B}} = \arctan([A_y + B_y]/[A_x + B_x]) = \arctan(-1.50/5.40) = \arctan(-2.78) =$ -15.5º.

Check the quadrant: since x is positive but y is negative, the angle is in QIIII and the given angle is correct.