Electric potential

Worksheet

1- Calculate the electric potential due to a point charge [q=3μC] at the points [A_1 at r_1=0.25 m]   [A_2 at r_2 = 0.045m]

2- As shown in the front figure, the two charges q_1 = 2 μC and q_2 = -3 μC.

The point A at 4.6 m from the (+) charge   A●
And 6 m apart from the (-) charge.
Calculate the total potential at the point A.

3- As shown in figure, three identical charges and they
are separated by distances [a = 0.3 m,   θ = 60°]   [a]
If the potential at the head of the triangle is 20V,
Calculate the magnitude of the charges[q_1, q_2, and q_3]