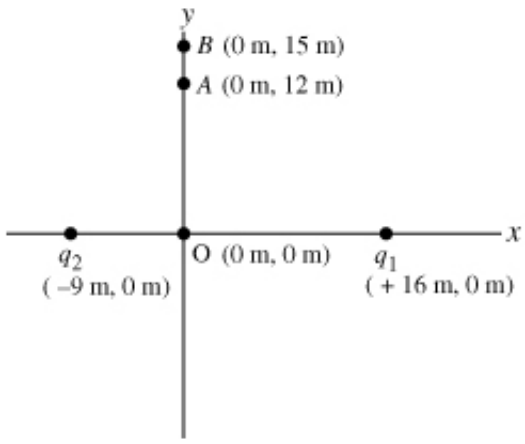
Electric Field due to Multiple Point Charges

Two point charges are placed on the *x* axis. (Figure 1) The first charge, q_1 = 8.00 nC , is placed a distance 16.0 m from the origin along the positive *x* axis; the second charge, q_2 = 6.00 nC , is placed a distance 9.00 m from the origin along the negative *x* axis.

Figure 1 of 1



Part A

Calculate the electric field at point A, located at c

Give the *x* and *y* components of the electric fi figures.

E_{Ax}, E_{Ay} = 0,0.300 $\mathrm{N/C}$

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Part B

An unknown additional charge q_3 is now placed a Find the magnitude and sign of q_3 needed to mak

Express your answer in nanocoulombs to thre

q_3 = 0.300 nC

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