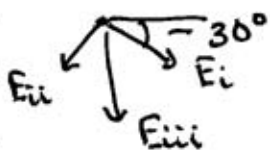


B.  $|E| = \frac{kq}{r^2} = \frac{9 \times 10^9 (3 \times 10^{-3})}{(.01)^2} = 2.7 \times 10^4 \text{ N/C}$

$E_x = 0$  (two positive cancel)

$E_y = 2 * 2.7 \times 10^4 \sin 30^\circ + 2.7 \times 10^4$   
 $= 5.4 \times 10^4 \text{ N/C down}$   
 (-y direction)



C.  $V = \frac{kq}{r} = \frac{9 \times 10^9 (3 \times 10^{-3})}{.01} = 2.7 \times 10^9 \text{ volts}$   
 (+ not a vector one positive cancels the negative - one positive left)