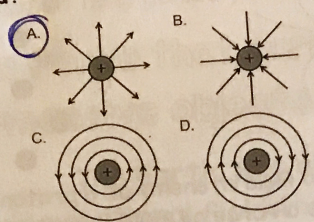


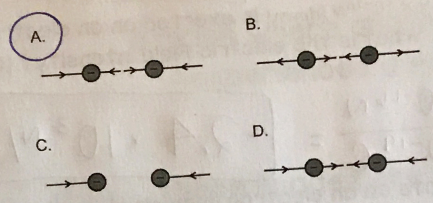
$20^3 \sqrt{6t}$. $20^3 \sqrt{\quad}$

Don't understand? Send me a message!
Try it...

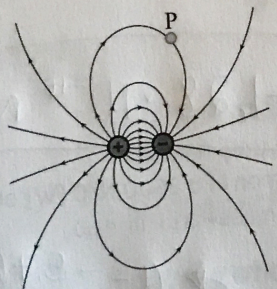
1. Which diagram best represents the electric field lines around a positive charge Q?








2. Which diagram represents the electric field created by two equal negative charges along the line connecting the two charges?

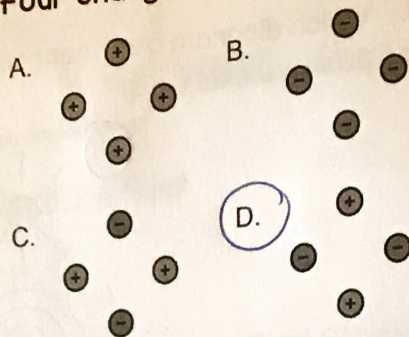
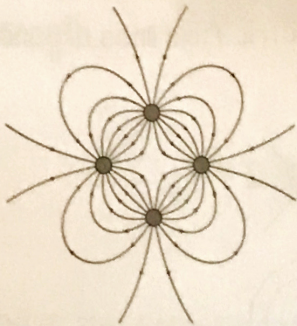


3. What is the direction of the electric field at the point P?



- A. 
- B. 
- C. 
- D. 
- E. 

4. The electric field lines of four charges are shown to the right. What are the signs of the four charges?



5. What is the electric field intensity of a proton if a $60.8 \times 10^{-6} \text{ C}$ charge experiences a force of 180 N North? (One Proton = $+1.60 \times 10^{-19} \text{ C}$)

$$E = \frac{F}{q} = \frac{180 \text{ N [N]}}{60.8 \times 10^{-6} \text{ C}} = 2.96 \times 10^6 \text{ N/C [N]}$$

6. A force of $3.9 \times 10^{-16} \text{ N [down]}$ is exerted on an electron placed in an electric field. What is the electric field intensity? (One Electron = $-1.60 \times 10^{-19} \text{ C}$)

$$E = \frac{F}{q} = \frac{3.9 \times 10^{-16} \text{ N}}{-1.6 \times 10^{-19} \text{ C}} = -2.4 \times 10^3 \text{ N/C [down]}$$

7. What force acts on an electron in an electric field of 800 N/C? (One Electron = $-1.60 \times 10^{-19} \text{ C}$)

$$F = Eq$$

$$F = 800 \text{ N/C} (-1.6 \times 10^{-19} \text{ C}) = -1.28 \times 10^{-16} \text{ N}$$

8. What is the acceleration of an electron in a 3600 N/C [W] electric field? (One Electron = $-1.60 \times 10^{-19} \text{ C}$ and mass = $9.11 \times 10^{-31} \text{ kg}$)

$$F = Eq$$

$$F = 3600 \text{ N/C [W]} \cdot (-1.6 \times 10^{-19} \text{ C})$$

$$F = -5.76 \times 10^{-16} \text{ N}$$

$$\rightarrow F = m \cdot a \text{ and } a = \frac{F}{m}$$

$$\rightarrow a = \frac{-5.76 \times 10^{-16} \text{ N}}{9.11 \times 10^{-31} \text{ kg}}$$

$$a = -0.63 \times 10^{15} \text{ m/s}^2 \text{ [W]}$$