

Honors Physics

Electrostatics HW Answers

10.1)  $F_1 = -46.74 \text{ N}$

$F_2 = 157.29 \text{ N}$

$F_3 = -110.55 \text{ N}$

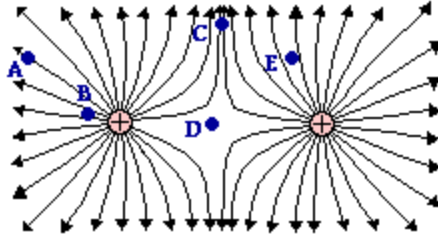
10.2)  $F = 1.381 \times 10^{-5} \text{ N @ } 192.5^\circ$

10.3)  $F = 3.89 \times 10^{-7} \text{ N @ } -11.3^\circ$

10.4)  $F = 0.8718 \text{ N @ } -29.7^\circ$

10.5)  $E = 754.52 \text{ N/C @ } 110$

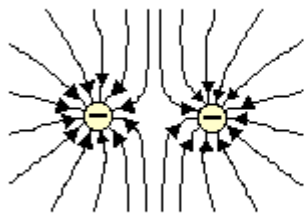
10.6)  $E = 0 \text{ N/C}$ . All electric fields cancel.



10.7)

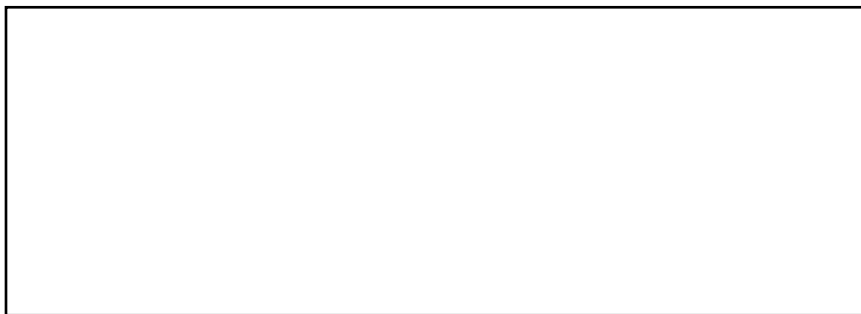
a)

**Other Charge Configurations**

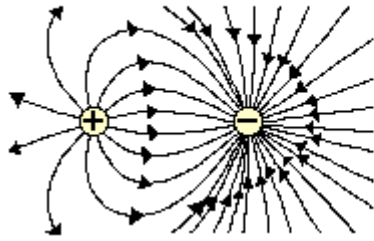
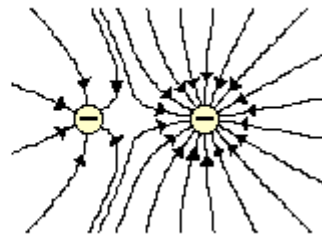
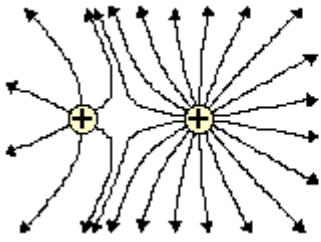


**Two Negatively Charged Objects**

b)



**Electric Field Line Patterns for Objects with Unequal Amounts of Charge**



c)

