

#flo

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## 1 | The cat, and Mary

seperation is one meter and charge is +/- one coulomb, the force is around 9 bil newtons cat woudnt feel great...

why use this ungodly amount to define a coulomb?

open question

$F = kq_1q_2/r^2$   $F > 0$  like charges  $F < 0$  opposite charges

equations gives you a scalar, not directions. tells you if they attract or repel

electrons inside a conductor slosh around like a fluid

## 2 | If the charges on a conductor are stationary or static

electrons try to reach equilibrium for them to be still, there must be no forces -> no e-field

## 3 | electric fields

- are perpendicular to the surface, and "skin deep"
  - charge is zero when u go in
    - \* except when charge is flowing

if charges are moving, all bets are off

fields curve near the end when fields on top arnt there to cancel

treat parrelel planes as infinite

## 4 | the pufferfish

gauss, the second. gauss, the first, is in a drawer at lick

when your're dead you don't need friends