CONCEPT: DISSOCIATION CONSTANT AND pKa

●In general chemistry, we used pH to measure _____

• In organic chemistry, we use _____ to measure the tendency for a molecule to _____

□ Strong acids have a _____ dissociation constant (they _____ dissociate in aqueous solution)

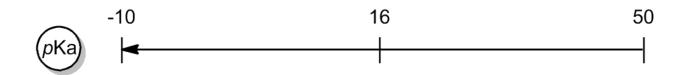
□ Weak acids have a _____ dissociation constant (they _____ dissociate in aqueous solution)

• p = $K_a = \left(\frac{[H+][A-]}{[HA]}\right)$

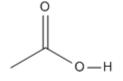
(dissociation constant)

Therefore, the ____ Ka, the ____ the pKa

0



EXAMPLE: Calculate the pK_a's of the following acids and indicate which is the stronger acid.



Dissociation Constant = 1.75 x 10⁻⁵

Acetic Acid

Ammonium

Dissociation Constant = 5.8 x 10⁻¹⁰