1. In any sample of water, there are always some water molecules which have.
a) $\mathrm{H}_{2} \mathrm{O}^{+}$and $\mathrm{OH}^{-}$
b) $\mathrm{HO}^{+}$and $\mathrm{H}_{2} \mathrm{O}^{-}$
c) $\mathrm{H}_{3} \mathrm{O}^{+}$and $\mathrm{OH}^{-}$
2. $\mathrm{HO}^{+}$and $\mathrm{HO}^{-}$
3. When the pH of water is neutral,
a) a higher concentration of $\mathrm{OH}^{-}$than $\mathrm{H}_{3} \mathrm{O}^{+}$
b) an equal concentration of $\mathrm{OH}^{-}$and $\mathrm{H}_{3} \mathrm{O}^{+}$
c) a higher concentration of $\mathrm{H}_{3} \mathrm{O}^{+}$than $\mathrm{OH}^{-}$
d) $\mathrm{noOH}^{-}$ions and no $\mathrm{H}_{3} \mathrm{O}^{+}$ions
4. When a solution becomes more acidic, the number on the pH scale.
a) Decreases
b) Increases
c) Stays the same
d) Doubles
5. When the solution becomes more basic, the number on the pH scale.
a) Decreases
b) Increases
c) Stays the same
d) Triples
6. When the pH of a solution becomes acidic, the concentration of $\mathrm{H}_{3} \mathrm{O}^{+}$ions.
a) Decreases
b) Increases
c) Stays the same
d) Doubles
7. When the pH of a solution becomes basic, the concentration of $\mathrm{H}_{3} \mathrm{O}^{+}$ions.
a) Decreases
b) Increases
c) Stays the same.
d) Triples
