Ch 18 Pretest - Answers

1) Sulfuric Acid
2) Sulfurous Acid
3) HNO_3
4) $Ca(OH)_2$
5)

$pOH = -\log[OH^-]$
$= -\log[5.34 \times 10^{-10}]$
pOH = 9.27

$pH = 14 - pOH$
$= 14 - 9.27$
pH = 4.73

6) $\left(\frac{5.0\text{ g HBr}}{1}\right)\left(\frac{1\text{ mole HBr}}{80.9\text{ g HBr}}\right)\left(\frac{1}{.45\text{ L}}\right) = .14\text{ M HBr}$

$pH = -\log[+H]$
$= -\log[.14]$
pH = .85

$pOH = 14 - pH$
$= 14 - .85$
pOH = 13.16

7) $pOH = -\log[OH^-]$
$= -\log[6.3 \times 10^{-9}]$
pOH = 8.2

$pH = 14 - pOH$
$= 14 - 8.2$
pH = 5.8

8) A) $HCl + CaOH \rightarrow HOH \text{ or } H_2O + CaCl$
Acid Base CA CB

B) $H_2O + H_3PO_4 \rightarrow H_2PO_4^- + H_3O^+$
Base Acid CB CA

9) pH stands for "potential of hydrogen"

10) Diprotic Acids can donate more than 1 hydrogen into Solution Example H_2SO_4

11) A substance that can act as both an Acid or Base