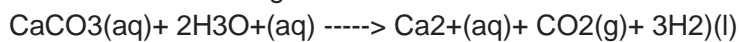


## Answer on Question #60062 – Chemistry – General Chemistry

Condition: How many moles of stomach acid would be neutralized by one tablet of Tums Ultra 1000 that contains 1000 mg of calcium carbonate?



Solution:

$$M(\text{CaCO}_3) = 100\text{mg/mol}$$

$$m(\text{CaCO}_3) = 1000\text{ mg}$$

$$n(\text{CaCO}_3) = \frac{m(\text{CaCO}_3)}{M(\text{CaCO}_3)} = \frac{1000\text{ mg}}{100\text{mg/mol}} = 10\text{ mol}$$

$$n(\text{H}_3\text{O}^+) = 2 * n(\text{CaCO}_3) = 2 * 10\text{ mol} = 20\text{ mol}$$

**Answer: 20 mol** of stomach acid would be neutralized by one tablet of Tums Ultra 1000