# Answer on Question #67254 - Chemistry -General Chemistry

If the caffeine concentration in a particular brand of soda is 1.99 mg/oz, drinking how many cans of soda would be lethal? Assume 10.0 grams of caffeine is a lethal dose, and there are 12 oz in a can.

**Solution:**

Find the caffeine mass in a can:

$$m(\text{caffeine}) = 1.99 \times 12 = 23.88 \text{ mg}$$

A single can of soda contains 23.88 mg of caffeine

x — 10.0 g of caffeine

$$x = 10.0 \times 1000/23.88 = 418.76 \approx 419 \text{ cans}$$

**Answer**:

419 cans.