

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## The Mole: Multi Step Conversions: Quiz 3a

**Make sure to SHOW ALL WORK and INCLUDE UNITS!**

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1. Strychnine,  $C_{21}H_{22}N_2O_2$ , is a powerful poison and has been used to eradicate rats. If a can of rat poison contains 0.95 g of strychnine, what is the total number of atoms in the can?



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Answers:

*MM = 334.45 g / mol 1 molec = 47 atoms*

$$0.95 \text{ g} \times \frac{1 \text{ mol}}{334.45 \text{ g}} \times \frac{6.02 \times 10^{23} \text{ molec}}{1 \text{ mol}} \times \frac{47 \text{ atoms}}{1 \text{ molec}} = 8.0 \times 10^{22} \text{ atoms}$$