

# MIXED MOLE PROBLEMS

Name \_\_\_\_\_

Solve the following problems.

1. How many grams are there in  $1.5 \times 10^{25}$  molecules of  $\text{CO}_2$ ?

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2. What volume would the  $\text{CO}_2$  in Problem 1 occupy at STP?

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3. A sample of  $\text{NH}_3$  gas occupies 75.0 liters at STP. How many molecules is this?

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4. What is the mass of the sample of  $\text{NH}_3$  in Problem 3?

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5. How many atoms are there in  $1.3 \times 10^{22}$  molecules of  $\text{NO}_2$ ?

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6. A 5.0 g sample of  $\text{O}_2$  is in a container at STP. What volume is the container?

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7. How many molecules of  $\text{O}_2$  are in the container in Problem 6? How many atoms of oxygen?

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