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## Moles, Molecules, and Grams Worksheet

1) How many molecules are there in 24 grams of $\mathrm{FeF}_{3}$ ?
2) How many molecules are there in 450 grams of $\mathrm{Na}_{2} \mathrm{SO}_{4}$ ?
3) How many grams are there in $2.3 \times 10^{24}$ atoms of silver?
4) How many grams are there in $7.4 \times 10^{23}$ molecules of $\mathrm{AgNO}_{3}$ ?
5) How many grams are there in $7.5 \times 10^{23}$ molecules of $\mathrm{H}_{2} \mathrm{SO}_{4}$ ?
6) How many molecules are there in 122 grams of $\mathrm{Cu}\left(\mathrm{NO}_{3}{ }_{3}\right)_{2}$ ?
7) How many grams are there in $9.4 \times 10^{25}$ molecules of $\mathrm{H}_{2}$ ?
8) How many molecules are there in 230 grams of $\mathrm{CoCl}_{2}$ ?

Name $\qquad$ Date $\qquad$ Period $\qquad$
9) How many molecules are there in 2.3 grams of $\mathrm{NH}_{4} \mathrm{SO}_{2}$ ?
10) How many grams are there in $3.3 \times 10^{23}$ molecules of $\mathrm{N}_{2} l_{6}$ ?
11) How many molecules are there in 200 grams of $\mathrm{CCl}_{4}$ ?
12) How many grams are there in $1 \times 10^{24}$ molecules of $\mathrm{BCl}_{3}$ ?
13) How many grams are there in $4.5 \times 10^{22}$ molecules of $\mathrm{Ba}(\mathrm{NO} \text { ? 2) })_{2}$ ?
14) How many molecules are there in 9.34 grams of LiCl ?
15) How many grams do $4.3 \times 10^{21}$ molecules of $U F_{6}$ weigh?
16) How many molecules are there in 230 grams of $\mathrm{NH}_{4} \mathrm{OH}$ ?
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## Moles, Molecules, and Grams Worksheet - Answer Key

1) How many molecules are there in 24 grams of $\mathrm{FeF}_{3} ? 1.28 \times 10^{23}$ molecules
2) How many molecules are there in 450 grams of $\mathrm{Na}_{2} \mathrm{SO}_{4}$ ? $1.91 \times 10^{24}$ molecules
3) How many grams are there in $2.3 \times 10^{24}$ atoms of silver? 421 grams
4) How many grams are there in $7.4 \times 10^{23}$ molecules of $\mathrm{AgNO}_{3}$ ? 209 grams
5) How many grams are there in $7.5 \times 10^{23}$ molecules of $\mathrm{H}_{2} \mathrm{SO}_{4}$ ? 122 grams
6) How many molecules are there in 122 grams of $\left.\mathrm{Cu}\left(\mathrm{NO}_{3}\right)_{2}\right)_{2} 3.92 \times 10^{23}$ molecules
7) How many grams are there in $9.4 \times 10^{25}$ molecules of $\mathrm{H}_{2}$ ? 312 grams
8) How many molecules are there in 230 grams of $\mathrm{CoCl}_{2}$ ? $1.07 \times 10^{24}$ molecules
9) How many molecules are there in 2.3 grams of $\mathrm{NH}_{4} \mathrm{SO}_{2} ? 1.69 \times 10^{22}$ molecules
10) How many grams are there in $3.3 \times 10^{23}$ molecules of $\mathrm{N}_{2} \mathrm{I}_{6}$ ? 430 grams
11) How many molecules are there in 200 grams of $\mathrm{CCl}_{4}$ ? $7.82 \times 10^{23}$ molecules
12) How many grams are there in $1 \times 10^{24}$ molecules of $\mathrm{BCl}_{3}$ ? 195 grams
13) How many grams are there in $4.5 \times 10^{22}$ molecules of $\mathrm{Ba}(\mathrm{NO}$ ? 2) 2? 17.1 grams
14) How many molecules are there in 9.34 grams of LiCl? $1.33 \times 10^{23}$ molecules
15) How many grams do $4.3 \times 10^{21}$ molecules of $\mathrm{UF}_{6}$ weigh? 2.51 grams
16) How many molecules are there in 230 grams of $\mathrm{NH}_{4} \mathrm{OH}$ ? $3.96 \times 10^{24}$ molecules
