

# Mole Concept Puzzle

What is the mass of $4.23 \times 10^{23}$ atoms of iron?  _____ Set 1	How many moles are $4.52 \times 10^{23}$ molecules of water?  _____ Set 1	What is the mass of 1.35 moles of NaCl?  _____ Set 1	What is the mass of 0.0472 moles of ammonium sulfate?  _____ Set 1
What is the mass of $6.69 \times 10^{23}$ atoms of aluminum?  _____ Set 1	How many moles are in $6.13 \times 10^{23}$ atoms of platinum?  _____ Set 1	What is the mass of 1.26 moles of iron(III) oxide?  _____ Set 1	What is the mass of $3.54 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 1
How many formula units are in 21.4 g of calcium hydroxide?  _____ Set 1	How many moles are in 64.1 g of copper(II) chloride?  _____ Set 1	How many atoms are in 16.8 g of gold?  _____ Set 1	How many moles of silver are in a 0.500 g coin of pure silver?  _____ Set 1
What is the mass of $2.97 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 1	How many formula units are in 3.57 moles of potassium hydroxide?  _____ Set 1	How many formula units are in 1.89 moles of sodium carbonate?  _____ Set 1	How many atoms are in 35.2 g of lead?  _____ Set 1

# Mole Concept Puzzle

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# Mole Concept Puzzle

<p>What is the mass of <math>6.19 \times 10^{23}</math> atoms of iron?</p> <p>_____</p> <p>Set 2</p>	<p>How many moles are in <math>2.13 \times 10^{23}</math> molecules of water?</p> <p>_____</p> <p>Set 2</p>	<p>What is the mass of 4.85 moles of NaCl?</p> <p>_____</p> <p>Set 2</p>	<p>What is the mass of 0.0722 moles of ammonium sulfate?</p> <p>_____</p> <p>Set 2</p>
<p>What is the mass of <math>5.43 \times 10^{23}</math> atoms of aluminum?</p> <p>_____</p> <p>Set 2</p>	<p>How many moles are in <math>1.97 \times 10^{23}</math> atoms of platinum?</p> <p>_____</p> <p>Set 2</p>	<p>What is the mass of 2.16 moles of iron(III) oxide?</p> <p>_____</p> <p>Set 2</p>	<p>What is the mass of <math>7.64 \times 10^{23}</math> formula units of aluminum nitrate?</p> <p>_____</p> <p>Set 2</p>
<p>How many formula units are in 34.1 g of calcium hydroxide?</p> <p>_____</p> <p>Set 2</p>	<p>How many moles are in 56.2 g of copper(II) chloride?</p> <p>_____</p> <p>Set 2</p>	<p>How many atoms are in 11.3 g of gold?</p> <p>_____</p> <p>Set 2</p>	<p>How many moles of silver are in a 0.700 g coin of pure silver?</p> <p>_____</p> <p>Set 2</p>
<p>What is the mass of <math>3.69 \times 10^{23}</math> formula units of sodium sulfate?</p> <p>_____</p> <p>Set 2</p>	<p>How many formula units are in 2.75 moles of potassium hydroxide?</p> <p>_____</p> <p>Set 2</p>	<p>How many formula units are in 1.64 moles of sodium carbonate?</p> <p>_____</p> <p>Set 2</p>	<p>How many atoms are in 25.6 g of lead?</p> <p>_____</p> <p>Set 2</p>

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $3.45 \times 10^{23}$ atoms of iron?  _____ Set 3	How many moles are in $9.64 \times 10^{23}$ molecules of water?  _____ Set 3	What is the mass of 2.71 moles of NaCl?  _____ Set 3	What is the mass of 0.0842 moles of ammonium sulfate?  _____ Set 3
What is the mass of $4.15 \times 10^{23}$ atoms of aluminum?  _____ Set 3	How many moles are in $6.23 \times 10^{23}$ atoms of platinum?  _____ Set 3	What is the mass of 1.57 moles of iron(III) oxide?  _____ Set 3	What is the mass of $5.84 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 3
How many formula units are in 66.3 g of calcium hydroxide?  _____ Set 3	How many moles are in 28.1 g of copper(II) chloride?  _____ Set 3	How many atoms are in 49.2 g of gold?  _____ Set 3	How many moles of silver are in a 0.179 g coin of pure silver?  _____ Set 3
What is the mass of $2.34 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 3	How many formula units are in 1.82 moles of potassium hydroxide?  _____ Set 3	How many formula units are in 2.19 moles of sodium carbonate?  _____ Set 3	How many atoms are in 46.4 g of lead?  _____ Set 3

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $3.45 \times 10^{22}$ atoms of iron?  _____ Set 4	How many moles are in $2.56 \times 10^{23}$ molecules of water?  _____ Set 4	What is the mass of 3.29 moles of NaCl?  _____ Set 4	What is the mass of 0.0572 moles of ammonium sulfate?  _____ Set 4
What is the mass of $6.24 \times 10^{23}$ atoms of aluminum?  _____ Set 4	How many moles are in $7.21 \times 10^{23}$ atoms of platinum?  _____ Set 4	What is the mass of 1.39 moles of iron(III) oxide?  _____ Set 4	What is the mass of $2.58 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 4
How many formula units are in 15.4 g of calcium hydroxide?  _____ Set 4	How many moles are in 26.6 g of copper(II) chloride?  _____ Set 4	How many atoms are in 58.8 g of gold?  _____ Set 4	How many moles of silver are in a 1.26 g coin of pure silver?  _____ Set 4
What is the mass of $7.23 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 4	How many formula units are in 2.66 moles of potassium hydroxide?  _____ Set 4	How many formula units are in 1.87 moles of sodium carbonate?  _____ Set 4	How many atoms are in 23.7 g of lead?  _____ Set 4

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $2.46 \times 10^{23}$ atoms of iron?  _____ Set 5	How many moles are in $8.35 \times 10^{23}$ molecules of water?  _____ Set 5	What is the mass of 1.59 moles of NaCl?  _____ Set 5	What is the mass of 0.0891 moles of ammonium sulfate?  _____ Set 5
What is the mass of $3.78 \times 10^{23}$ atoms of aluminum?  _____ Set 5	How many moles are in $4.31 \times 10^{23}$ atoms of platinum?  _____ Set 5	What is the mass of 2.36 moles of iron(III) oxide?  _____ Set 5	What is the mass of $6.45 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 5
How many formula units are in 46.2 g of calcium hydroxide?  _____ Set 5	How many moles are in 73.1 g of copper(II) chloride?  _____ Set 5	How many atoms are in 94.4 g of gold?  _____ Set 5	How many moles of silver are in a 0.461 g coin of pure silver?  _____ Set 5
What is the mass of $6.46 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 5	How many formula units are in 3.18 moles of potassium hydroxide?  _____ Set 5	How many formula units are in 2.76 moles of sodium carbonate?  _____ Set 5	How many atoms are in 89.7 g of lead?  _____ Set 5

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $8.12 \times 10^{23}$ atoms of iron?  _____ Set 6	How many moles are in $3.75 \times 10^{23}$ molecules of water?  _____ Set 6	What is the mass of 2.68 moles of NaCl?  _____ Set 6	What is the mass of 0.0914 moles of ammonium sulfate?  _____ Set 6
What is the mass of $5.19 \times 10^{23}$ atoms of aluminum?  _____ Set 6	How many moles are in $4.67 \times 10^{23}$ atoms of platinum?  _____ Set 6	What is the mass of 1.06 moles of iron(III) oxide?  _____ Set 6	What is the mass of $2.87 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 6
How many formula units are in 21.2 g of calcium hydroxide?  _____ Set 6	How many moles are in 54.8 g of copper(II) chloride?  _____ Set 6	How many atoms are in 19.2 g of gold?  _____ Set 6	How many moles of silver are in a 0.648 g coin of pure silver?  _____ Set 6
What is the mass of $1.63 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 6	How many formula units are in 2.39 moles of potassium hydroxide?  _____ Set 6	How many formula units are in 1.95 moles of sodium carbonate?  _____ Set 6	How many atoms are in 15.3 g of lead?  _____ Set 6

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# Mole Concept Puzzle

What is the mass of $6.33 \times 10^{23}$ atoms of iron?  _____ Set 7	How many moles are in $4.54 \times 10^{23}$ molecules of water?  _____ Set 7	What is the mass of 1.12 moles of NaCl?  _____ Set 7	What is the mass of 0.114 moles of ammonium sulfate?  _____ Set 7
What is the mass of $3.92 \times 10^{23}$ atoms of aluminum?  _____ Set 7	How many moles are in $7.38 \times 10^{23}$ atoms of platinum?  _____ Set 7	What is the mass of 1.33 moles of iron(III) oxide?  _____ Set 7	What is the mass of $3.96 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 7
How many formula units are in 68.8 g of calcium hydroxide?  _____ Set 7	How many moles are in 17.3 g of copper(II) chloride?  _____ Set 7	How many atoms are in 256 g of gold?  _____ Set 7	How many moles of silver are in a 2.25 g coin of pure silver?  _____ Set 7
What is the mass of $3.46 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 7	How many formula units are in 1.24 moles of potassium hydroxide?  _____ Set 7	How many formula units are in 2.13 moles of sodium carbonate?  _____ Set 7	How many atoms are in 46.7 g of lead?  _____ Set 7

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $2.89 \times 10^{23}$ atoms of iron?  _____ Set 8	How many moles are in $3.46 \times 10^{23}$ molecules of water?  _____ Set 8	What is the mass of 5.27 moles of NaCl?  _____ Set 8	What is the mass of 1.52 moles of ammonium sulfate?  _____ Set 8
What is the mass of $2.64 \times 10^{23}$ atoms of aluminum?  _____ Set 8	How many moles are in $3.98 \times 10^{23}$ atoms of platinum?  _____ Set 8	What is the mass of 2.44 moles of iron(III) oxide?  _____ Set 8	What is the mass of $5.16 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 8
How many formula units are in 27.4 g of calcium hydroxide?  _____ Set 8	How many moles are in 51.2 g of copper(II) chloride?  _____ Set 8	How many atoms are in 46.3 g of gold?  _____ Set 8	How many moles of silver are in a 0.121 g coin of pure silver?  _____ Set 8
What is the mass of $5.58 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 8	How many formula units are in 0.357 moles of potassium hydroxide?  _____ Set 8	How many formula units are in 3.74 moles of sodium carbonate?  _____ Set 8	How many atoms are in 81.9 g of lead?  _____ Set 8

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $1.45 \times 10^{23}$ atoms of iron?  _____ Set 9	How many moles are in $4.73 \times 10^{23}$ molecules of water?  _____ Set 9	What is the mass of 7.18 moles of NaCl?  _____ Set 9	What is the mass of 2.53 moles of ammonium sulfate?  _____ Set 9
What is the mass of $6.94 \times 10^{23}$ atoms of aluminum?  _____ Set 9	How many moles are in $4.18 \times 10^{23}$ atoms of platinum?  _____ Set 9	What is the mass of 1.35 moles of iron(III) oxide?  _____ Set 9	What is the mass of $9.67 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 9
How many formula units are in 41.2 g of calcium hydroxide?  _____ Set 9	How many moles are in 39.3 g of copper(II) chloride?  _____ Set 9	How many atoms are in 52.9 g of gold?  _____ Set 9	How many moles of silver are in a 0.133 g coin of pure silver?  _____ Set 9
What is the mass of $7.29 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 9	How many formula units are in 1.26 moles of potassium hydroxide?  _____ Set 9	How many formula units are in 2.83 moles of sodium carbonate?  _____ Set 9	How many atoms are in 47.9 g of lead?  _____ Set 9

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $5.36 \times 10^{23}$ atoms of iron?  _____ Set 10	How many moles are in $6.19 \times 10^{23}$ molecules of water?  _____ Set 10	What is the mass of 3.82 moles of NaCl?  _____ Set 10	What is the mass of 1.45 moles of ammonium sulfate?  _____ Set 10
What is the mass of $2.76 \times 10^{23}$ atoms of aluminum?  _____ Set 10	How many moles are in $8.53 \times 10^{23}$ atoms of platinum?  _____ Set 10	What is the mass of 2.67 moles of iron(III) oxide?  _____ Set 10	What is the mass of $6.41 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 10
How many formula units are in 92.7 g of calcium hydroxide?  _____ Set 10	How many moles are in 45.1 g of copper(II) chloride?  _____ Set 10	How many atoms are in 68.2 g of gold?  _____ Set 10	How many moles of silver are in a 3.45 g coin of pure silver?  _____ Set 10
What is the mass of $6.62 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 10	How many formula units are in 2.19 moles of potassium hydroxide?  _____ Set 10	How many formula units are in 1.34 moles of sodium carbonate?  _____ Set 10	How many atoms are in 99.2 g of lead?  _____ Set 10



# Mole Concept Puzzle

What is the mass of $3.48 \times 10^{23}$ atoms of iron?  _____ Set 11	How many moles are in $4.81 \times 10^{23}$ molecules of water?  _____ Set 11	What is the mass of 6.23 moles of NaCl?  _____ Set 11	What is the mass of 5.79 moles of ammonium sulfate?  _____ Set 11
What is the mass of $1.45 \times 10^{23}$ atoms of aluminum?  _____ Set 11	How many moles are in $3.82 \times 10^{23}$ atoms of platinum?  _____ Set 11	What is the mass of 2.13 moles of iron(III) oxide?  _____ Set 11	What is the mass of $5.19 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 11
How many formula units are in 67.2 g of calcium hydroxide?  _____ Set 11	How many moles are in 18.7 g of copper(II) chloride?  _____ Set 11	How many atoms are in 48.9 g of gold?  _____ Set 11	How many moles of silver are in a 7.22 g coin of pure silver?  _____ Set 11
What is the mass of $3.49 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 11	How many formula units are in 1.77 moles of potassium hydroxide?  _____ Set 11	How many formula units are in 4.28 moles of sodium carbonate?  _____ Set 11	How many atoms are in 16.2 g of lead?  _____ Set 11

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# Mole Concept Puzzle

What is the mass of $6.33 \times 10^{23}$ atoms of iron?  _____ Set 12	How many moles are in $6.13 \times 10^{23}$ molecules of water?  _____ Set 12	What is the mass of 2.47 moles of NaCl?  _____ Set 12	What is the mass of 3.85 moles of ammonium sulfate?  _____ Set 12
What is the mass of $9.61 \times 10^{23}$ atoms of aluminum?  _____ Set 12	How many moles are in $1.43 \times 10^{23}$ atoms of platinum?  _____ Set 12	What is the mass of 1.89 moles of iron(III) oxide?  _____ Set 12	What is the mass of $4.75 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 12
How many formula units are in 26.3 g of calcium hydroxide?  _____ Set 12	How many moles are in 58.4 g of copper(II) chloride?  _____ Set 12	How many atoms are in 98.6 g of gold?  _____ Set 12	How many moles of silver are in a 0.111 g coin of pure silver?  _____ Set 12
What is the mass of $2.31 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 12	How many formula units are in 2.84 moles of potassium hydroxide?  _____ Set 12	How many formula units are in 3.79 moles of sodium carbonate?  _____ Set 12	How many atoms are in 89.4 g of lead?  _____ Set 12

# Mole Concept Puzzle

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# Mole Concept Puzzle

<p>What is the mass of <math>8.46 \times 10^{23}</math> atoms of iron?</p> <p>_____</p> <p>Set 13</p>	<p>How many moles are in <math>7.84 \times 10^{23}</math> molecules of water?</p> <p>_____</p> <p>Set 13</p>	<p>What is the mass of 1.68 moles of NaCl?</p> <p>_____</p> <p>Set 13</p>	<p>What is the mass of 2.47 moles of ammonium sulfate?</p> <p>_____</p> <p>Set 13</p>
<p>What is the mass of <math>8.67 \times 10^{23}</math> atoms of aluminum?</p> <p>_____</p> <p>Set 13</p>	<p>How many moles are in <math>4.76 \times 10^{23}</math> atoms of platinum?</p> <p>_____</p> <p>Set 13</p>	<p>What is the mass of 2.39 moles of iron(III) oxide?</p> <p>_____</p> <p>Set 13</p>	<p>What is the mass of <math>2.16 \times 10^{23}</math> formula units of aluminum nitrate?</p> <p>_____</p> <p>Set 13</p>
<p>How many formula units are in 35.4 g of calcium hydroxide?</p> <p>_____</p> <p>Set 13</p>	<p>How many moles are in 19.6 g of copper(II) chloride?</p> <p>_____</p> <p>Set 13</p>	<p>How many atoms are in 64.3 g of gold?</p> <p>_____</p> <p>Set 13</p>	<p>How many moles of silver are in a 0.897 g coin of pure silver?</p> <p>_____</p> <p>Set 13</p>
<p>What is the mass of <math>2.77 \times 10^{23}</math> formula units of sodium sulfate?</p> <p>_____</p> <p>Set 13</p>	<p>How many formula units are in 3.15 moles of potassium hydroxide?</p> <p>_____</p> <p>Set 13</p>	<p>How many formula units are in 1.64 moles of sodium carbonate?</p> <p>_____</p> <p>Set 13</p>	<p>How many atoms are in 12.8 g of lead?</p> <p>_____</p> <p>Set 13</p>

# Mole Concept Puzzle

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# Mole Concept Puzzle

<p>What is the mass of <math>5.73 \times 10^{23}</math> atoms of iron?</p> <p>_____</p> <p>Set 14</p>	<p>How many moles are in <math>2.46 \times 10^{23}</math> molecules of water?</p> <p>_____</p> <p>Set 14</p>	<p>What is the mass of 3.75 moles of NaCl?</p> <p>_____</p> <p>Set 14</p>	<p>What is the mass of 4.17 moles of ammonium sulfate?</p> <p>_____</p> <p>Set 14</p>
<p>What is the mass of <math>7.86 \times 10^{23}</math> atoms of aluminum?</p> <p>_____</p> <p>Set 14</p>	<p>How many moles are in <math>3.51 \times 10^{23}</math> atoms of platinum?</p> <p>_____</p> <p>Set 14</p>	<p>What is the mass of 1.88 moles of iron(III) oxide?</p> <p>_____</p> <p>Set 14</p>	<p>What is the mass of <math>9.46 \times 10^{23}</math> formula units of aluminum nitrate?</p> <p>_____</p> <p>Set 14</p>
<p>How many formula units are in 48.3 g of calcium hydroxide?</p> <p>_____</p> <p>Set 14</p>	<p>How many moles are in 67.2 g of copper(II) chloride?</p> <p>_____</p> <p>Set 14</p>	<p>How many atoms are in 41.1 g of gold?</p> <p>_____</p> <p>Set 14</p>	<p>How many moles of silver are in a 0.0927 g coin of pure silver?</p> <p>_____</p> <p>Set 14</p>
<p>What is the mass of <math>6.18 \times 10^{23}</math> formula units of sodium sulfate?</p> <p>_____</p> <p>Set 14</p>	<p>How many formula units are in 5.53 moles of potassium hydroxide?</p> <p>_____</p> <p>Set 14</p>	<p>How many formula units are in 2.88 moles of sodium carbonate?</p> <p>_____</p> <p>Set 14</p>	<p>How many atoms are in 29.4 g of lead?</p> <p>_____</p> <p>Set 14</p>

# Mole Concept Puzzle

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# Mole Concept Puzzle

What is the mass of $2.15 \times 10^{23}$ atoms of iron?  _____ Set 15	How many moles are in $3.70 \times 10^{23}$ molecules of water?  _____ Set 15	What is the mass of 1.78 moles of NaCl?  _____ Set 15	What is the mass of 3.54 moles of ammonium sulfate?  _____ Set 15
What is the mass of $2.96 \times 10^{23}$ atoms of aluminum?  _____ Set 15	How many moles are in $5.62 \times 10^{23}$ atoms of platinum?  _____ Set 15	What is the mass of 2.61 moles of iron(III) oxide?  _____ Set 15	What is the mass of $5.76 \times 10^{23}$ formula units of aluminum nitrate?  _____ Set 15
How many formula units are in 73.8 g of calcium hydroxide?  _____ Set 15	How many moles are in 45.1 g of copper(II) chloride?  _____ Set 15	How many atoms are in 22.7 g of gold?  _____ Set 15	How many moles of silver are in a 0.936 g coin of pure silver?  _____ Set 15
What is the mass of $4.45 \times 10^{23}$ formula units of sodium sulfate?  _____ Set 15	How many formula units are in 6.26 moles of potassium hydroxide?  _____ Set 15	How many formula units are in 1.24 moles of sodium carbonate?  _____ Set 15	How many atoms are in 78.1 g of lead?  _____ Set 15

# Mole Concept Puzzle

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