

Mole Lab Worksheet

GROUP #1 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 1.25 moles of salt (NaCl) into a <u>clear</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 4.52×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#1) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 6.13×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0485 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |

Mole Lab Worksheet

GROUP #2 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 1.35 moles of salt (NaCl) into a <u>clear</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 4.32×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#2) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 6.69×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0472 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |

Mole Lab Worksheet

GROUP #3 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|------------|------------|-----------|
| A. Measure out 1.51 moles of salt (NaCl) into a <u>clear</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 4.12×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#3) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 6.86×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0468 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | Show work: | | |

Mole Lab Worksheet

GROUP #4 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 1.65 moles of salt (NaCl) into a <u>clear</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 3.93×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#4) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 7.02×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0459 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |

Mole Lab Worksheet

GROUP #5 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 1.81 moles of salt (NaCl) into a clear, dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 3.76×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#5) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 7.25×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0447 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |

Mole Lab Worksheet

GROUP #6 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 1.95 moles of salt (NaCl) into a clear, dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 3.61×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#6) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 7.39×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0437 moles of ammonium sulfate into a <u>blue</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |

Mole Lab Worksheet

GROUP #7 (20 pts)

Names: _____

Do each of the following tasks, showing your results to the instructor as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks.

- | | within 2% | within 5% | within 10% | you tried |
|--|-----------|-----------|------------|-----------|
| A. Measure out 2.15 moles of salt (NaCl) into a clear, dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| B. Put 3.48×10^{24} molecules of water into a <u>red</u> , dry cup. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| C. Obtain a sample of copper metal (#7) from your instructor and determine how many atoms it contains. Write your answer here: _____ then show it to the instructor and return the sample. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| D. Hand your instructor 7.63×10^{22} atoms of aluminum. | 4 | 3 | 2 | 1 |
| Show work: | | | | |
| E. Measure out 0.0425 moles of ammonium sulfate into a <u>blue</u> , dry cup. | | | | |
| Show work: | | | | |