Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 1 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of sodium chloride. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of sodium chloride looks like.

Show work:

B. Measure out 2.80 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.15x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#1) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.45x1022 formula units of sodium carbonate.

Show work:

Group #1 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 2 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of water. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of water looks like.

Show work:

B. Measure out 2.92 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 2.98 x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#2) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.34x1022 formula units of sodium carbonate.

Show work:

Group #2 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 3 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of dextrose (C6H12O6 – H2O). This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of dextrose looks like.

Show work:

B. Measure out 3.10 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.11x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#3) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.10x1022 formula units of sodium carbonate.

Show work:

Group #3 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 4 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of sodium carbonate. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of sodium carbonate looks like.

Show work:

B. Measure out 2.87 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.04x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#4) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.23x1022 formula units of sodium carbonate.

Show work:

Group #4 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 5 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of sodium sulfite. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of sodium sulfite looks like.

Show work:

B. Measure out 2.57 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 2.99x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#5) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.12x1022 formula units of sodium carbonate.

Show work:

Group #5 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 6 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of magnesium sulfate. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of magnesium sulfate looks like.

Show work:

B. Measure out 2.87 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.04x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#6) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.23x1022 formula units of sodium carbonate.

Show work:

Group #6 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 7 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of aluminum AND a mole of copper. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of aluminum AND 1 mole of copper looks like.

Show work:

B. Measure out 2.93 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.09x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#7) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.29x1022 formula units of sodium carbonate.

Show work:

Group #7 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 8 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of calcium carbonate. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of calcium carbonate looks like.

Show work:

B. Measure out 2.82 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.00x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#8) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.45x1022 formula units of sodium carbonate.

Show work:

Group #8 grade

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 9 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of sodium hydrogen carbonate. This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of sodium hydrogen carbonate looks like.

Show work:

B. Measure out 2.69 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.08x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#9) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.29x1022 formula units of sodium carbonate.

Show work:

Group #9 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Group # 10 Chem B Unit 6, Day 3: Mole Lab Practical

Hour: \_\_\_\_\_

**Purpose**: To visualize the mole (6.02x1023 representative particles) through “counting by weighing” and to practice your computational skills.

**Task**: Complete each of the following tasks, showing your results to one of the instructors as you complete them. Your grade for each will be based on the accuracy with which you complete the tasks. This lab practical will count as a lab grade and will be worth 20 points.

A. **Measure a mole!** Collect a mole of sucrose (C12H22O11). This will be shown to the class and you will be asked to introduce yourself to the class, state what compound it is and its chemical formula. Please leave it at your lab station until Ms. P can take a picture of what 1 mole of sucrose (C12H22O11) looks like.

Show work:

B. Measure out 2.85 moles of salt (NaCl) into a clean, dry cup.

Show work:

C. Put 3.02x1024 molecules of water into a small white cup.

Show work:

D. Obtain a sample of copper metal (#10) from your instructor and determine how many moles it contains. Write your answer here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ then show it to the instructor and return the sample.

Show work:

E. Hand your instructor 9.25x1022 formula units of sodium carbonate.

Show work:

Group #10 grade:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task  | Within 2% error | Within 5% | With 10% | You tried! |
| B | 4 | 3 | 2 | 1 |
| C | 4 | 3 | 2 | 1 |
| D | 4 | 3 | 2 | 1 |
| E | 4 | 3 | 2 | 1 |

Total: \_\_\_\_\_\_/20