

Name \_\_\_\_\_ Period \_\_\_\_\_

College Prep Chemistry of the Earth System

Assignment 0N – Solving for Density, Part 3 – Mixed Problems

20 Points

*Solve each problem, writing the equation for each variable given*

|         |                   |      |                   |        |                   |
|---------|-------------------|------|-------------------|--------|-------------------|
| Density | $D = \frac{m}{v}$ | Mass | $m = D \bullet v$ | Volume | $v = \frac{m}{D}$ |
|---------|-------------------|------|-------------------|--------|-------------------|

|                                                  |  |     |  |                                                 |  |     |  |
|--------------------------------------------------|--|-----|--|-------------------------------------------------|--|-----|--|
| D = 4.96g/mL, v = 51.9mL, find mass ( <i>m</i> ) |  |     |  | m = 53.9g, v = 90.4mL find Density ( <i>D</i> ) |  |     |  |
| Equation                                         |  |     |  | Equation                                        |  |     |  |
| D =                                              |  | v = |  | m =                                             |  | v = |  |
| m =<br>( <i>Work</i> )                           |  |     |  | D =<br>( <i>Work</i> )                          |  |     |  |
| Mass ( <i>m</i> ) =                              |  |     |  | Density ( <i>D</i> ) =                          |  |     |  |

|                                                 |  |     |  |                                                    |  |     |  |
|-------------------------------------------------|--|-----|--|----------------------------------------------------|--|-----|--|
| m = 31.6g, v = 15.5mL find Density ( <i>D</i> ) |  |     |  | D = 0.65g/mL, m = 86.90g, find volume ( <i>v</i> ) |  |     |  |
| Equation                                        |  |     |  | Equation                                           |  |     |  |
| m =                                             |  | v = |  | D =                                                |  | m = |  |
| D =<br>( <i>Work</i> )                          |  |     |  | v =<br>( <i>Work</i> )                             |  |     |  |
| Density ( <i>D</i> ) =                          |  |     |  | Volume ( <i>v</i> ) =                              |  |     |  |

|                                                   |  |     |  |                                                    |  |     |  |
|---------------------------------------------------|--|-----|--|----------------------------------------------------|--|-----|--|
| D = 0.78g/mL, v = 68.60mL, find mass ( <i>m</i> ) |  |     |  | D = 2.05g/mL, m = 146.3g, find volume ( <i>v</i> ) |  |     |  |
| Equation                                          |  |     |  | Equation                                           |  |     |  |
| D =                                               |  | v = |  | D =                                                |  | m = |  |
| m =<br>( <i>Work</i> )                            |  |     |  | v =<br>( <i>Work</i> )                             |  |     |  |
| Mass ( <i>m</i> ) =                               |  |     |  | Volume ( <i>v</i> ) =                              |  |     |  |