

CHEMISTRY HONORS PRETEST  
No Calculators Necessary

Name:

Directions: Rearrange the following algebraic expressions to solve for y. You do not need to find the answer of y, just correctly rearrange. Place your final answer in the box provided.

- |  |   |
|--|---|
| 1. $M_a V_a = M_b V_b$ (Solve for $M_b$ )            | 4. $\frac{V_1}{T_1} = \frac{V_2}{T_2}$ (Solve for $T_2$ ) |
| 2. $P_T = P_{H_2} + P_{H_2O}$ (solve for $P_{H_2}$ ) | 5. $P_1 V_1 T_2 = P_2 V_2 T_1$ (solve for $P_2$ )         |
| 3. $PV = nRT$ (solve for n)                          | 6. $d = \frac{PM}{RT}$ (solve for T)                      |

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_
  5. \_\_\_\_\_
  6. \_\_\_\_\_

Directions: Solve the following metric conversions. Place answer in the box provided.

1. Convert 1.7 kg into cg
2. Convert 0.71 mm/s into km/s
3. Convert 2.44 L into mL
4. Convert 45654 mg to kg

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_

Directions: Place the following numbers into correct scientific notation (exponential notation). Place answers in the box provided.

1. 123456
2. .0001234
3.  $1.2 \times 10^{23} \bullet 2$  (solve this one)
4.  $.00567 \times 10^{-2}$

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_

Directions: Find the least common multiple between the given numbers. Place answer in the box provided.

1. 12, 45, and 60
2. 18, 36 and 54

1. \_\_\_\_\_
  2. \_\_\_\_\_

Directions: Solve the following density problems. Place answers in the box provided.

- |  |   |
|--|---|
| 1. Calculate the density of a material that has a mass of 12 g and a volume of 2 ml. | 2. Mercury has a density of 5.00 g/ml. How much space would 10.0 g of mercury occupy? |
|--|---|

1. \_\_\_\_\_
  2. \_\_\_\_\_

Directions: Place the following numbers in *increasing* order. Place answer in the box provided.

$1.0 \times 10^{-4}$ , 0.001,  $9.80 \times 10^{-5}$ ,  $2.7 \times 10^2$ , 0.009

Directions: Round the following numbers to the nearest hundredth. Place answer in the box provided.

- |           |           |
|-----------|-----------|
| 1. 1.9999 | 3. 79.094 |
| 2. 15.999 | 4. 22.989 |

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_