



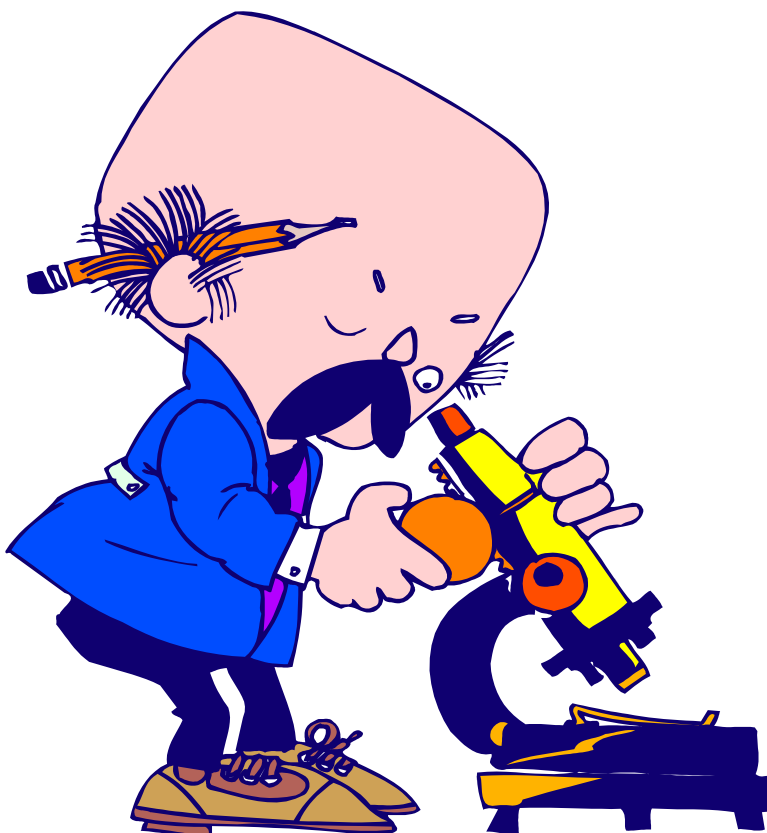
## MATH for SCIENCE

### Metric Conversions ~ Lesson Plan

- I. Topic: Metric Conversions ~
  
- II. Goals/Objectives:
  - A. Students will learn how to create and label a metric chart from kilo to milli positions, plus mega, micro, and nano positions.
  - B. Students will understand how to convert numbers with metric units from a given metric unit to either a larger or smaller metric unit using a metric chart.
  - C. Students will be able to convert numbers with metric units to either a larger or smaller metric unit using dimensional analysis.
  
- III. National Education Standards:
  - A. Mathematics.
    1. NM-NUM.9-12.1  
Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
    2. NM-ALG.9-12.3  
Use mathematic models to represent and understand quantitative relationships.
    3. NM-PROB.PK-12.1  
Build new math knowledge through problem solving.
    4. NM-PROB.PK-12.3  
Apply and adapt a variety of appropriate strategies to solve problems.
    5. NM-PROB.REA.PK-12.4  
Select and use various types of reasoning and methods of proof.
    6. NM-PROB.COMM.PK-12.2  
Communicate their mathematic thinking coherently and clearly to peers, teachers, and others.
    7. NM-PROB.COMM.PK-12.3  
Analyze and evaluate the mathematic thinking and strategies of others.
    8. NM-PROB.CONN.PK-12.1  
Recognize and use connections among mathematic ideas.
    9. NM-PROB.CONN,PK-12.3  
Recognize and apply mathematic contexts outside of mathematics.
    10. NM-PROB.REP.PK-12.2  
Select, apply, and translate among mathematic representations to solve problems.
  - B. Science
    1. Standard 12: Level III – Benchmarks 6,8  
Level IV – Benchmark 4
  
- IV. Materials:
  - A. Blackboard with colored chalk or whiteboard with colored markers.
  - B. Overhead projector.
  - C. Clear projection sheets to copy the “Presentation Notes” on for the lecture.
  - D. “Student Notes” copied for each student.



- E. Pencils, colored pencils, & calculators.
  - F. Metric Conversions Worksheet.
  - G. Handout: Metric Equivalents and SI Units Charts.
- V. Presentation Outline:
- A. No math conversion process.
    - 1. Procedure.  
Metric Chart.
    - 2. Examples.
  - B. Mathematical process.
    - 1. Procedure.
    - 2. Examples.
- VI. Metric Conversion Presentation: Student Notes ~
- A. Students are to fill in the blank spaces in their notes during the presentation.
- VII. Independent Practice: Metric Conversions Worksheet ~
- A. Homework: #s 1 -15.
  - B. The work is due the next day.
- VIII. Evaluation/Assessment: Metric Conversions Quiz ~
- A. Have students take this quiz the next day after going over any questions about the homework.





## MATH for SCIENCE Metric Conversions

### I. Metric System Conversions ~ Without Math

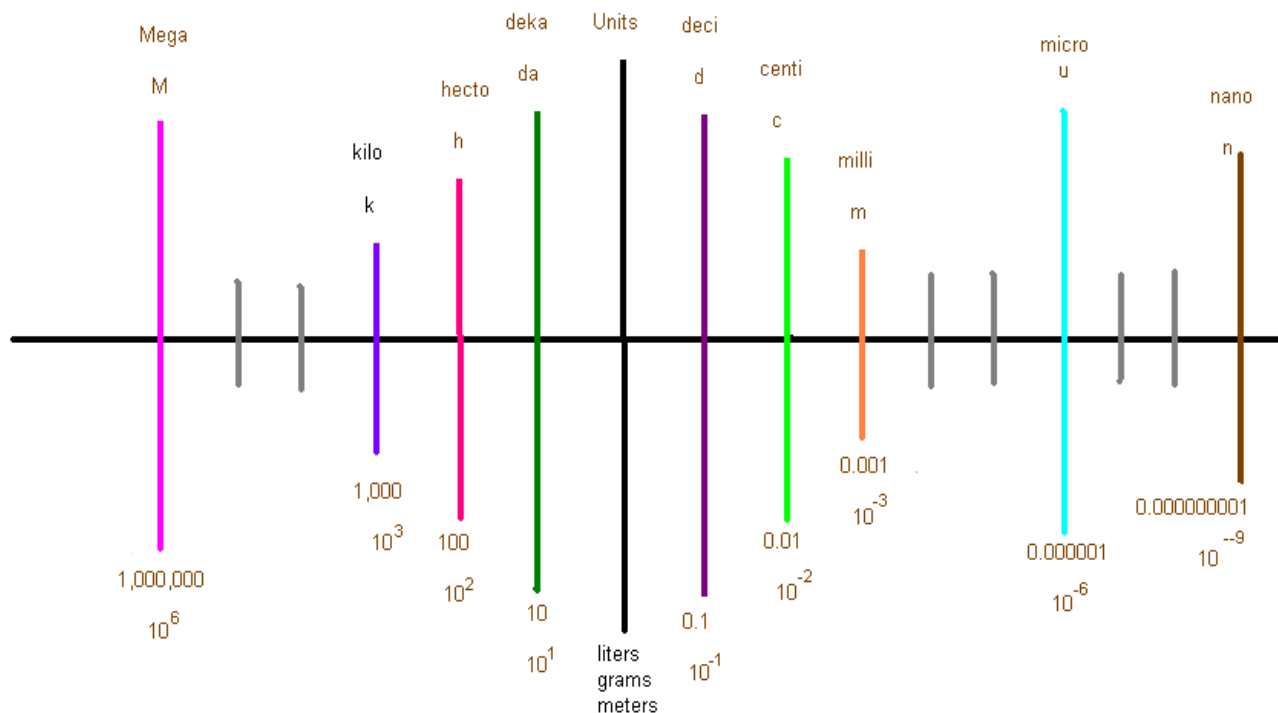
Conversions using no math.

A. Working with the metric system seems to scare many students who are accustomed to using the English system. The metric system is, however, a much easier system to do conversions from one unit to another unit. The metric chart below will help make moving from one set of metric units to another as easy as **moving** your pencil **left or right**.

B. To change units:

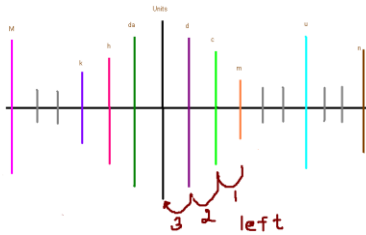
1. Go to the chart and place your pencil on the given units.
2. Then move your pencil to the new unit's position, note the:
  - a. The **number** of places. and
  - b. **Direction** you moved the pencil.
3. Then, with this information, return to the problem, put your pencil on the decimal point in the problem.
4. Move the **decimal point** in the **same** direction and the **same** number of places you moved on the chart. Put the new decimal point where you end. Rewrite the numbers with the decimal point in the new position. You're done!
5. If the decimal point needs to be moved more places than there are numbers; fill in these empty places with **zeros**.

### METRIC CHART





C. Examples:



$$237 \text{ mg} = ? \text{ g}$$

$$\begin{array}{r} 237. \\ \underline{321} \end{array}$$

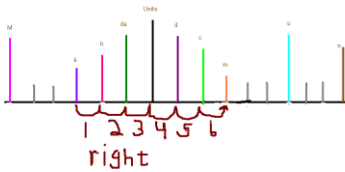
$$0.237 \text{ g}$$



$$1.4 \text{ hm} = ? \text{ cm}$$

$$\begin{array}{r} 1.4000. \\ \underline{1234} \end{array}$$

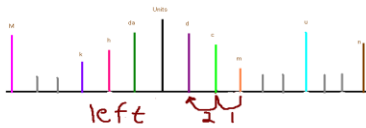
$$14.000. \text{ cm}$$



$$0.0354 \text{ kg} = ? \text{ mg}$$

$$\begin{array}{r} 0.035400. \\ \underline{123456} \end{array}$$

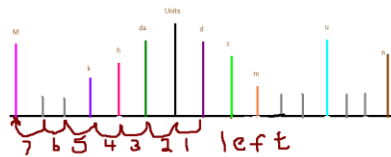
$$35400 \text{ mg}$$



$$20.7 \text{ ml} = ? \text{ dl}$$

$$\begin{array}{r} 20.7 \\ \underline{21} \end{array}$$

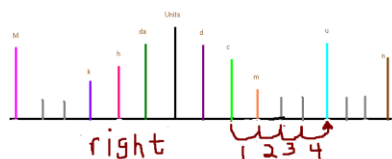
$$0.207 \text{ dl}$$



$$26,400 \text{ dg} = ? \text{ Mg}$$

$$\begin{array}{r} 0026400. \\ \underline{7654321} \end{array}$$

$$0.00264 \text{ Mg}$$



$$0.015 \text{ cm} = ? \text{ } \mu\text{m}$$

$$\begin{array}{r} 0.0150 \\ \underline{\quad\quad} \\ 150 \end{array}$$

## II. Metric Conversions ~ Mathematically

The metric conversions can also be done mathematically using the linear equation format used earlier for the other conversions.

**Given** x **Standard Fractional Equivalents** = **Looking For**

### A. Examples:

1. Convert 250 meters to # kilometers.

$$250 \text{ m} \times \frac{1 \text{ km}}{1,000 \text{ m}} = 0.250 \text{ km}$$

$$250 \text{ m} \times \frac{0.001 \text{ km}}{1 \text{ m}} = 0.250 \text{ km}$$

2. Convert 7.5 centimeters to # meters.

$$7.5 \text{ cm} \times \frac{1 \text{ m}}{100 \text{ cm}} = 0.075 \text{ m}$$

$$7.5 \text{ cm} \times \frac{0.01 \text{ m}}{1 \text{ cm}} = 0.075 \text{ m}$$

3. Convert 0.83 kilograms to # centigrams.

$$0.83 \text{ kg} \times \frac{1,000 \text{ g}}{1 \text{ kg}} \times \frac{100 \text{ cg}}{1 \text{ g}} = 83,000 \text{ cg}$$

$$0.83 \text{ kg} \times \frac{1 \text{ g}}{0.001 \text{ kg}} \times \frac{1 \text{ cg}}{0.01 \text{ g}} = 83,000 \text{ cg}$$

4. Convert 1,475 millimeters to # decameters.

$$1,475 \text{ ml} \times \frac{1 \text{ L}}{1,000 \text{ ml}} \times \frac{1 \text{ dal}}{10 \text{ L}} = 0.1475 \text{ dal}$$

$$1,475 \text{ ml} \times \frac{0.001 \text{ L}}{1 \text{ ml}} \times \frac{0.1 \text{ dal}}{1 \text{ L}} = 0.1475 \text{ dal}$$

### Note for Teachers:

The highlighted areas in the “Presentation” are the areas left blank in the “Student Notes.” These highlighted areas act as the grading “key” for the “Student Notes.” It is recommended that each word or number the student successfully records on his/her “Notes” sheets be given either one half (0.5) of a point or one point. Giving students points for recording important information encourages them to stay focused during class and helps to ensure that students have complete information to study.



## Metric Conversions ~ Student Notes

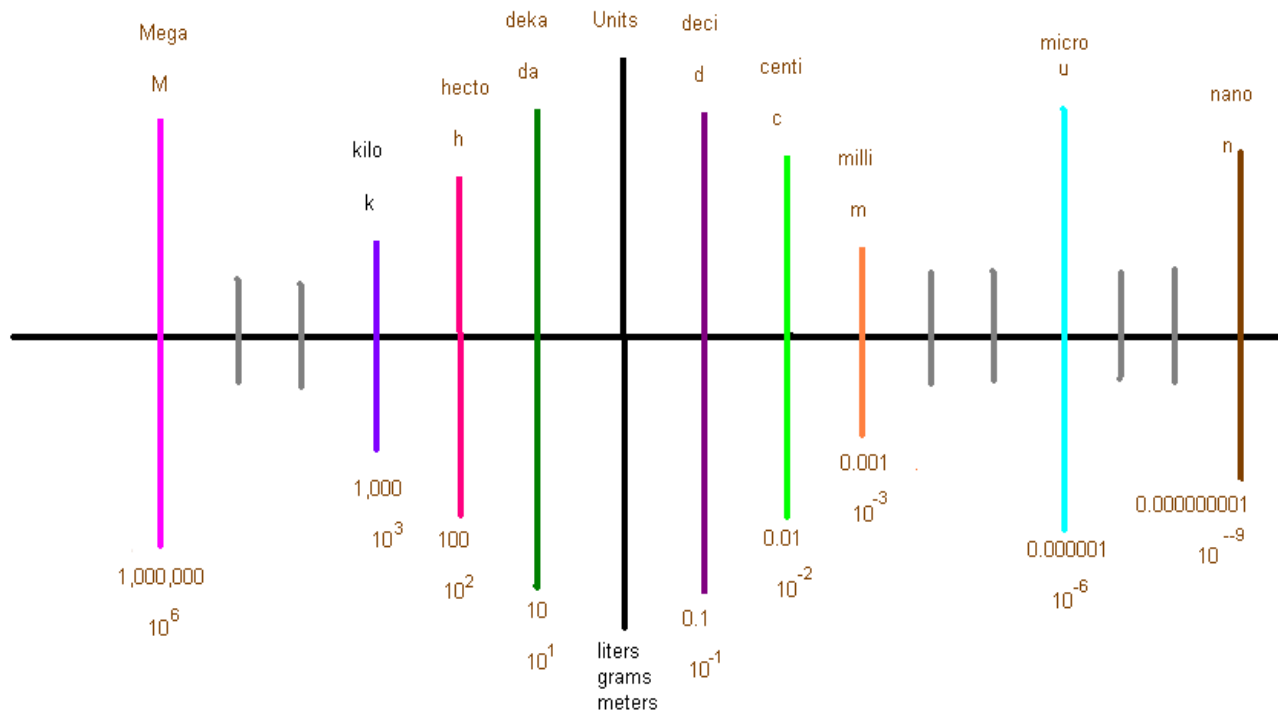
Name: \_\_\_\_\_ Date: \_\_\_\_\_ Grade: \_\_\_\_\_

### II. Metric System ~ Without Math Conversions using no math.

A. Working with the metric system seems to scare many students who are accustomed to using the English system. The metric system is, however, a much easier system to do conversions from one unit to another unit. The metric chart below will help make moving from one set of metric units to another as easy as \_\_\_\_\_ your pencil

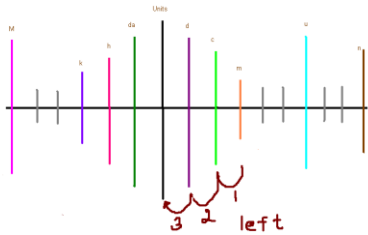
- B. To change units:
1. Go to the chart and place your pencil on the given units.
  2. Then move your pencil to the new unit's position, note the:
    - a. The \_\_\_\_\_ of places. and
    - b. \_\_\_\_\_ you moved the pencil.
  3. Then, with this information, return to the problem, put your pencil on the decimal point in the problem.
  4. Move the \_\_\_\_\_ in the \_\_\_\_\_ direction and the \_\_\_\_\_ number of places you moved on the chart. Put the new decimal point where you end. Rewrite the numbers with the decimal point in the new position. You're done!
  5. If the decimal point needs to be moved more places than there are numbers; fill in these empty places with \_\_\_\_\_.

### METRIC CHART





C. Examples:



$$237 \text{ mg} = ? \text{ g}$$

237.  
 3 2 1

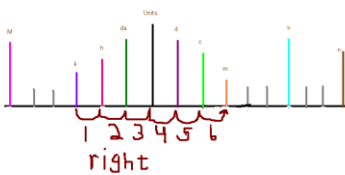
$$0.237 \text{ g}$$



$$1.4 \text{ km} = ? \text{ cm}$$

1.4 000.  
 1 2 3 4

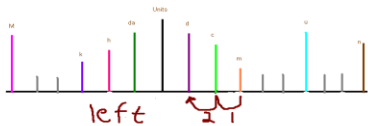
$$14,000. \text{ cm}$$



$$0.0354 \text{ kg} = ? \text{ mg}$$

0.0354 00.  
 1 2 3 4 5 6

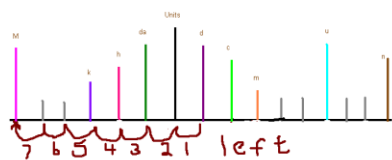
$$35,400 \text{ mg}$$



$$20.7 \text{ ml} = ? \text{ dl}$$

20.7  
 2 1

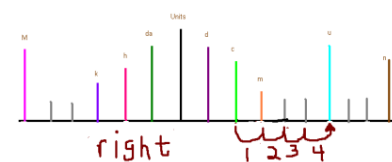
$$0.207 \text{ dl}$$



$$26,400 \text{ dg} = ? \text{ Mg}$$

00 26400.  
 7 6 5 4 3 2 1

$$0.00264 \text{ Mg}$$



$$0.015 \text{ cm} = ? \text{ um}$$

0.015 0.  
 1 2 3 4

$$150 \text{ um}$$



## II. Metric Conversions ~ Mathematically

The metric conversions can also be done mathematically using the linear equation format used earlier for the other conversions.

**Given** x **Standard Fractional Equivalents** = **Looking For**

Examples:

1. Convert 250 meters to # kilometers.

$$250 \text{ m} \times \frac{1 \text{ km}}{1000 \text{ m}} =$$

$$250 \text{ m} \times \frac{\text{km}}{1000 \text{ m}} =$$

2. Convert 7.5 centimeters to # meters.

$$7.5 \text{ cm} \times \frac{1 \text{ m}}{100 \text{ cm}} =$$

$$7.5 \text{ cm} \times \frac{\text{m}}{100 \text{ cm}} =$$

3. Convert 0.83 kilograms to # centigrams.

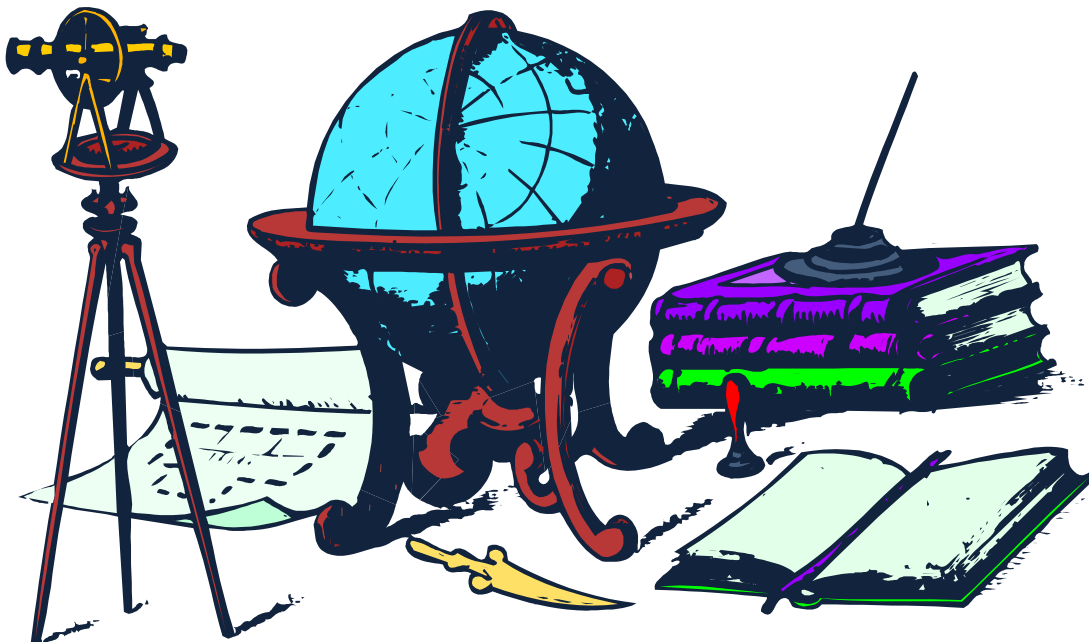
$$0.83 \text{ kg} \times \frac{1000 \text{ g}}{1 \text{ kg}} \times \frac{100 \text{ cg}}{1 \text{ g}} =$$

$$0.83 \text{ kg} \times \frac{1000 \text{ g}}{1 \text{ kg}} \times \frac{100 \text{ cg}}{1 \text{ g}} =$$

4. Convert 1,475 millimeters to # decameters.

$$1,475 \text{ mm} \times \frac{1 \text{ L}}{1000 \text{ ml}} \times \frac{1 \text{ dal}}{10 \text{ L}} =$$

$$1,475 \text{ mm} \times \frac{\text{L}}{1000 \text{ ml}} \times \frac{\text{dal}}{10 \text{ L}} =$$







## Metric Conversion Worksheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Grade: \_\_\_\_\_

For the following conversions, first, do the conversions using the chart method, then, use the mathematical, linear conversion method. Attach the work for the linear conversion to the back of this sheet.

- |     |  |     |       |
|-----|--|-----|-------|
| 1.  | $1.5 \text{ km} = ? \text{ cm}$            | 1.  | _____ |
| 2.  | $487.5 \text{ ml} = ? \text{ L}$           | 2.  | _____ |
| 3.  | $0.063 \text{ Mg} = ? \text{ dag}$         | 3.  | _____ |
| 4.  | $25 \text{ dg} = ? \text{ hg}$             | 4.  | _____ |
| 5.  | $14,750 \text{ }\mu\text{m} = ? \text{ m}$ | 5.  | _____ |
| 6.  | $3.4 \text{ hl} = ? \text{ dl}$            | 6.  | _____ |
| 7.  | $3,762.3 \text{ mg} = ? \text{ kg}$        | 7.  | _____ |
| 8.  | $5.17 \text{ m} = ? \text{ cm}$            | 8.  | _____ |
| 9.  | $0.0072 \text{ dal} = ? \text{ ml}$        | 9.  | _____ |
| 10. | $8.91 \text{ cg} = ? \text{ g}$            | 10. | _____ |
| 11. | $0.318 \text{ kg} = ? \text{ dg}$          | 11. | _____ |
| 12. | $3.56 \text{ dm} = ? \text{ }\mu\text{m}$  | 12. | _____ |
| 13. | $147 \text{ cg} = ? \text{ mg}$            | 13. | _____ |
| 14. | $0.0082 \text{ Ml} = ? \text{ L}$          | 14. | _____ |
| 15. | $78 \text{ L} = ? \text{ kl}$              | 15. | _____ |





## Metric Conversion Worksheet Answer Key

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Grade: \_\_\_\_\_

For the following conversions, first do the conversions using the chart method, then, use the mathematical, linear conversion method. Attach the work for the linear conversion to the back of this sheet.

- |                               |   |
|-------------------------------|---|
| 1. 1.5 km = ? cm              | 1. <u>150,00 cm</u>                         |
| 2. 487.5 ml = ? L             | 2. <u>0.4875 L</u>                          |
| 3. 0.063 Mg = ? dag           | 3. <u>6300 dag</u>                          |
| 4. 25 dg = ? hg               | 4. <u>0.025 hg</u>                          |
| 5. 14,750 $\mu\text{m}$ = ? m | 5. <u>0.01475 m</u>                         |
| 6. 3.4 hl = ? dl              | 6. <u>3,400 dl</u>                          |
| 7. 3,762.3 mg = ? kg          | 7. <u>0.0037623 kg</u>                      |
| 8. 5.17 m = ? cm              | 8. <u>517 cm</u>                            |
| 9. 0.0072 dal = ? ml          | 9. <u>72 ml</u>                             |
| 10. 8.91 cg = ? g             | 10. <u>0.0891 g</u>                         |
| 11. 0.318 kg = ? dg           | 11. <u>3,180 dg</u>                         |
| 12. 3.56 dm = ? $\mu\text{m}$ | 12. <u>356,000 <math>\mu\text{m}</math></u> |
| 13. 147 cg = ? mg             | 13. <u>1,470 mg</u>                         |
| 14. 0.0082 Ml = ? L           | 14. <u>8,200 L</u>                          |
| 15. 78 L = ? kl               | 15. <u>0.078 kl</u>                         |

1.  $1.5 \text{ km} \times \frac{1,000 \text{ m}}{1 \text{ km}} \times \frac{100 \text{ cm}}{1 \text{ m}} = 150,000 \text{ cm}$
2.  $487.5 \text{ ml} \times \frac{1 \text{ L}}{1,000 \text{ ml}} = 0.4875 \text{ L}$
3.  $0.063 \text{ Mg} \times \frac{100,000 \text{ dag}}{1 \text{ Mg}} = 6,300 \text{ dag}$
4.  $25 \text{ dg} \times \frac{1 \text{ hg}}{1,000 \text{ dg}} = 0.025 \text{ hg}$       $25 \text{ dg} \times \frac{1 \text{ m}}{10 \text{ dg}} \times \frac{1 \text{ hg}}{100 \text{ m}} = 0.025 \text{ hg}$
5.  $14,750 \mu\text{m} \times \frac{1 \text{ m}}{1,000,000 \mu\text{m}} = 0.01475 \text{ m}$
6.  $3.4 \text{ hl} \times \frac{100 \text{ L}}{1 \text{ hl}} \times \frac{10 \text{ dl}}{1 \text{ L}} = 3,400 \text{ dl}$       $3.4 \text{ hl} \times \frac{1 \text{ L}}{0.01 \text{ hl}} \times \frac{1 \text{ dl}}{0.1 \text{ L}} = 3,400 \text{ dl}$
7.  $3,762.3 \text{ mg} \times \frac{1 \text{ g}}{1,000 \text{ mg}} \times \frac{1 \text{ kg}}{1,000 \text{ g}} = 0.0037623 \text{ kg}$
8.  $5.17 \text{ m} \times \frac{100 \text{ cm}}{1 \text{ m}} = 517 \text{ cm}$



9.  $0.0072 \text{ dal} \times \frac{10 \text{ L}}{1 \text{ dal}} \times \frac{1,000 \text{ ml}}{1 \text{ L}} = 72 \text{ ml}$        $0.0072 \text{ dal} \times \frac{10,000 \text{ ml}}{1 \text{ dal}} = 72 \text{ ml}$
10.  $8.91 \text{ cg} \times \frac{1 \text{ g}}{100 \text{ cg}} = 0.0891 \text{ g}$
11.  $0.318 \text{ kg} \times \frac{1,000 \text{ g}}{1 \text{ kg}} \times \frac{10 \text{ dg}}{1 \text{ g}} = 3,180 \text{ dg}$        $0.318 \text{ kg} \times \frac{10,000 \text{ dg}}{1 \text{ kg}} = 3,180 \text{ dg}$
12.  $3.56 \text{ dm} \times \frac{100,000 \text{ } \mu\text{m}}{1 \text{ dm}} = 356,000 \text{ } \mu\text{m}$
13.  $147 \text{ cg} \times \frac{10 \text{ mg}}{1 \text{ cg}} = 1,470 \text{ mg}$
14.  $0.0082 \text{ Ml} \times \frac{1,000,000 \text{ L}}{1 \text{ Ml}} = 8,200 \text{ L}$
15.  $78 \text{ L} \times \frac{1 \text{ kl}}{1,000 \text{ L}} = 0.078 \text{ kl}$        $78 \text{ L} \times \frac{0.001 \text{ kl}}{1 \text{ L}} = 0.078 \text{ kl}$

**Worksheet Grading Rubric: 51/50 Points**

Problems	Linear Problem Set-up (2 pts each)	Labels Attached to All Numbers (1 pt each)	Correct Answer with Units Labeled (1 pt each)	Total Points (4 pts each) (24 pts Possible)
1.				
4.				
6.				
7.				
9.				
11.				

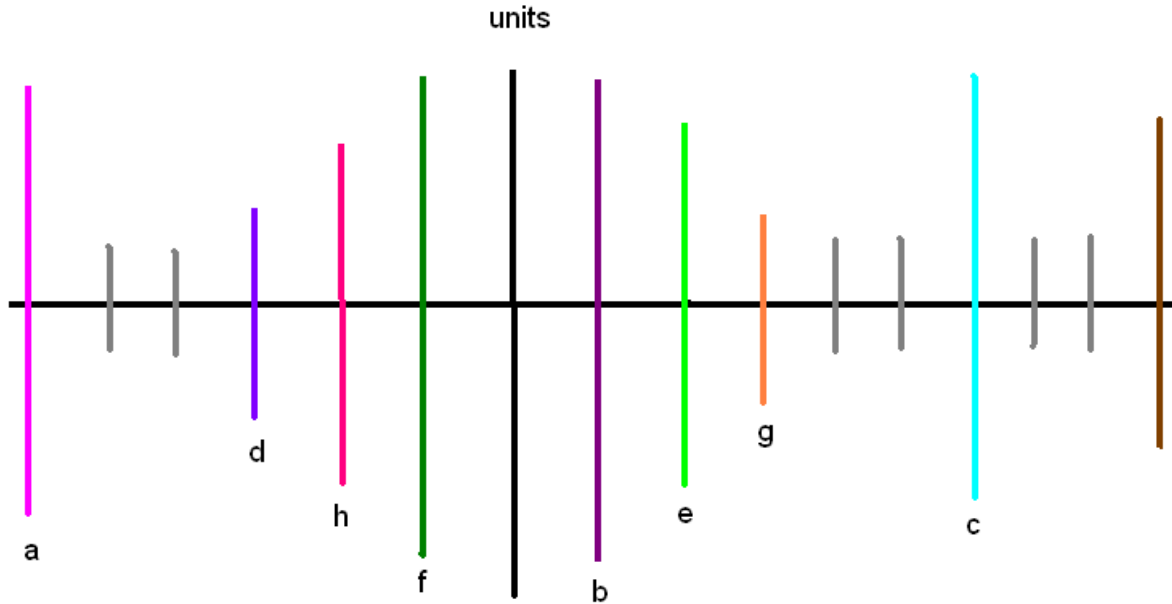
Problems	Linear Problem Set-up (1 pt each)	Labels Attached to All Numbers (1 pt each)	Correct Answer with Units Labeled (1 pt each)	Total Points (3 pts each) (27 pts Possible)
2.				
3.				
5.				
8.				
10.				
12.				
13.				
14.				
15.				





## Metric Conversion Quiz

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Grade: \_\_\_\_\_



1. \_\_\_\_\_ Which of the following represents the prefix and values for “a?”
  - A. Maga; 100,000;  $10^5$
  - B. Milli; 1,000,000;  $10^3$
  - C. Micro; 10,000;  $10^6$
  - D. Mega; 1,000,000;  $10^6$
  
2. \_\_\_\_\_ Which of the following represents the prefix and values for “b?”
  - A. deka; 10;  $10^1$
  - B. deci; 0.1;  $10^{-1}$
  - C. deka; - 1;  $10^{-1}$
  - D. deci; 0.01;  $10^1$
  
3. \_\_\_\_\_ Which of the following represents the prefix and values for “c?”
  - A. Micro; 0.000001;  $10^{-6}$
  - B. Mega; 1,000,000;  $10^6$
  - C. Milli; 0.001;  $10^{-6}$
  - D. Mega; 0.0000001;  $10^{-3}$
  
4. \_\_\_\_\_ Which of the following represents the prefix and values for “d?”
  - A. hecto; 100;  $10^{-3}$
  - B. deci; 0.001;  $10^{-3}$
  - C. kilo; 1,000;  $10^3$
  - D. hecto; 1,000;  $10^3$

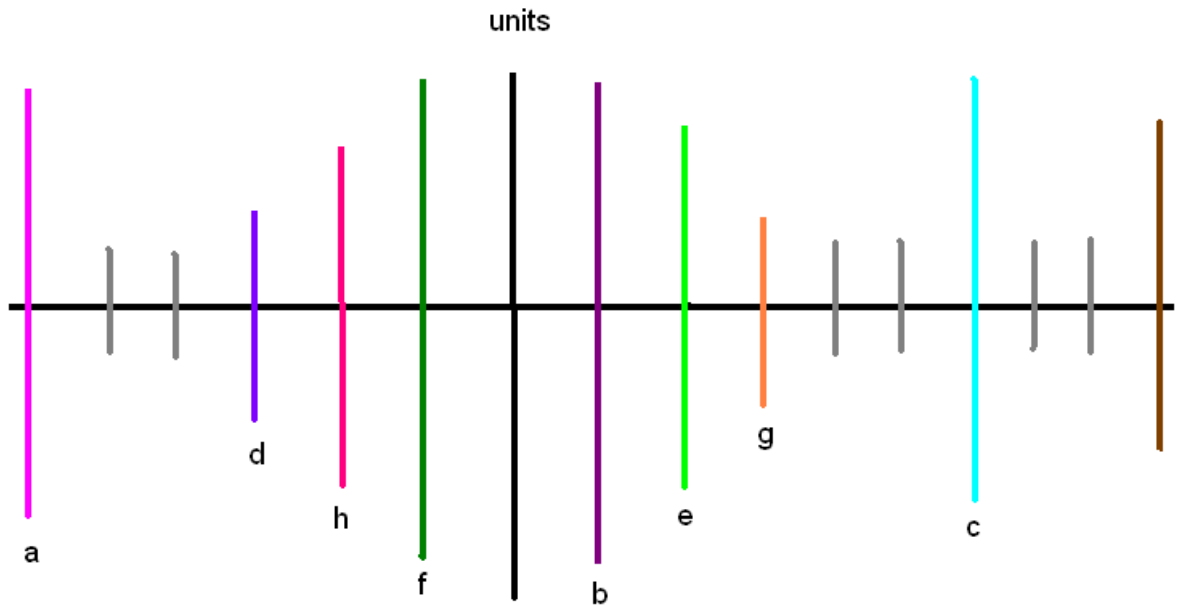


5. \_\_\_\_\_ Which of the following represents the prefix and values for “e?”
- A. hecto; 100;  $10^2$
  - B. centi; 0.01;  $10^{-2}$
  - C. centi; 0.001;  $10^{-3}$
  - D. deci; 0.1;  $10^{-2}$
6. \_\_\_\_\_ Which of the following represents the prefix and values for “f?”
- A. hecto; 1;  $10^0$
  - B. deka; 10;  $10^1$
  - C. deci; 10;  $10^1$
  - D. deci; 0.1;  $10^{-1}$
7. \_\_\_\_\_ Which of the following represents the prefix and values for “g?”
- A. Milli; 0.001;  $10^{-3}$
  - B. Mega; 1,000;  $10^3$
  - C. Micro; 0.001;  $10^{-3}$
  - D. Milli; 1,000;  $10^3$
8. \_\_\_\_\_ Which of the following represents the prefix and values for “h?”
- A. centi; 100;  $10^2$
  - B. kilo; 1,000;  $10^3$
  - C. deka; 10;  $10^1$
  - D. hecto; 100;  $10^2$
9. \_\_\_\_\_ Convert 273 mg to # dg.
- A. 0.273 dg
  - B. 27.3 dg
  - C. 27,300 dg
  - D. 2.73 dg
10. \_\_\_\_\_ Convert 8.52 hm to # Mm.
- A. 0.000852 Mm
  - B. 0.0852 Mm
  - C. 85,200 Mm
  - D. 8,520 Mm
11. \_\_\_\_\_ Convert 0.437 kg to # cg.
- A. 437 cg
  - B. 0.00000437 cg
  - C. 43,700 cg
  - D. 0.00437 cg
12. \_\_\_\_\_ Convert 62.5 mg to #  $\mu$ g.
- A. 62500  $\mu$ g
  - B. 0.0625  $\mu$ g
  - C. 625  $\mu$ g
  - D. 0.0000625  $\mu$ g
13. \_\_\_\_\_ Convert 4,951 ml to # dal.
- A. 49,510,000 dal
  - B. 0.4951 dal
  - C. 495.1 dal
  - D. 0.00004951 dal
14. 1 Kg equals \_\_\_\_\_ grams.
- A. 100
  - B. 10
  - C. 0.001
  - D. 1,000
15. \_\_\_\_\_ 1 meter equals \_\_\_\_\_ cm.
- A. 0.01
  - B. 1,000
  - C. 100
  - D. 0.1



## Metric Conversion Quiz Answer Key

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Grade: \_\_\_\_\_



- D Which of the following represents the prefix and values for “a?”
  - Mega; 100,000;  $10^5$
  - Milli; 1,000,000;  $10^3$
  - Micro; 10,000;  $10^6$
  - Mega; 1,000,000;  $10^6$
- B Which of the following represents the prefix and values for “b?”
  - deka; 10;  $10^1$
  - deci; 0.1;  $10^{-1}$
  - deka; - 1;  $10^{-1}$
  - deci; 0.01;  $10^1$
- A Which of the following represents the prefix and values for “c?”
  - Micro; 0.000001;  $10^{-6}$
  - Mega; 1,000,000;  $10^6$
  - Milli; 0.001;  $10^{-6}$
  - Mega; 0.0000001;  $10^{-3}$
- C Which of the following represents the prefix and values for “d?”
  - hecto; 100;  $10^{-3}$
  - deci; 0.001;  $10^{-3}$
  - kilo; 1,000;  $10^3$
  - hecto; 1,000;  $10^3$



5. B Which of the following represents the prefix and values for “e?”
- hecto; 100;  $10^2$
  - centi; 0.01;  $10^{-2}$
  - centi; 0.001;  $10^{-3}$
  - deci; 0.1;  $10^{-2}$
6. B Which of the following represents the prefix and values for “f?”
- hecto; 1;  $10^0$
  - deka; 10;  $10^1$
  - deci; 10;  $10^1$
  - deci; 0.1;  $10^{-1}$
7. A Which of the following represents the prefix and values for “g?”
- Milli; 0.001;  $10^{-3}$
  - Mega; 1,000;  $10^3$
  - Micro; 0.001;  $10^{-3}$
  - Milli; 1,000;  $10^3$
8. D Which of the following represents the prefix and values for “h?”
- centi; 100;  $10^2$
  - kilo; 1,000;  $10^3$
  - deka; 10;  $10^1$
  - hecto; 100;  $10^2$
9. D Convert 273 mg to # dg.
- 0.273 dg
  - 27.3 dg
  - 27,300 dg
  - 2.73 dg
10. A Convert 8.52 hm to # Mm.
- 0.000852 Mm
  - 0.0852 Mm
  - 85,200 Mm
  - 8,520 Mm
11. C Convert 0.437 kg to # cg.
- 437 cg
  - 0.00000437 cg
  - 43,700 cg
  - 0.00437 cg
12. A Convert 62.5 mg to #  $\mu$ g.
- 62500  $\mu$ g
  - 0.0625  $\mu$ g
  - 625  $\mu$ g
  - 0.0000625  $\mu$ g
13. B Convert 4,951 ml to # dal.
- 49,510,000 dal
  - 0.4951 dal
  - 495.1 dal
  - 0.00004951 dal
14. D 1 Kg equals \_\_\_\_\_ grams.
- 100
  - 10
  - 0.001
  - 1,000
15. C 1 meter equals \_\_\_\_\_ cm.
- 0.01
  - 1,000
  - 100
  - 0.1



**Quiz Grading Rubric: 30/30 Points**

Problems	Work Shown (1 pt each)	Correct Answer (1 pt each)	Total Points (2 pts each) (30 pts Possible)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
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11.			
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13.			
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15.			

