

Name \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

Below is a list of common metric prefixes and their scientific notation.:

### Metric Prefix Table

<u>Prefix</u>	<u>Symbol</u>	<u>Multiplier</u>	<u>Exponential</u>
yotta	Y	1,000,000,000,000,000,000,000,000	$10^{24}$
zetta	Z	1,000,000,000,000,000,000,000	$10^{21}$
exa	E	1,000,000,000,000,000,000	$10^{18}$
peta	P	1,000,000,000,000,000	$10^{15}$
tera	T	1,000,000,000,000	$10^{12}$
giga	G	1,000,000,000	$10^9$
mega	M	1,000,000	$10^6$
kilo	k	1,000	$10^3$
hecto	h	100	$10^2$
deca	da	10	$10^1$
Base unit		1	$10^0$
deci	d	0.1	$10^{-1}$
centi	c	0.01	$10^{-2}$
milli	m	0.001	$10^{-3}$
micro	$\mu$	0.000001	$10^{-6}$
<b>nano</b>	n	0.000000001	$10^{-9}$
pico	p	0.0000000000001	$10^{-12}$
femto	f	0.0000000000000001	$10^{-15}$
atto	a	0.0000000000000000001	$10^{-18}$
zepto	z	0.0000000000000000000001	$10^{-21}$
yocto	y	0.000000000000000000000001	$10^{-24}$

Convert the following using conversion factors:

1. 10 milliliters to liters:

2. 1 picometer to millimeter:

3. 3 microliters to centiliters:

4. 1 kilometer to micrometer:

5. 6 gigagrams to decigrams:

6. 1 hectometers to meter:

7. 14 micrograms to kilograms:

*Please convert the following numbers correctly into scientific notation*

1) 28,000,000 \_\_\_\_\_

2) 0.000000463 \_\_\_\_\_

3) 3,010,000 \_\_\_\_\_

4) 0.0000000000000057 \_\_\_\_\_

5) 0.00025 \_\_\_\_\_

6) 700 m \_\_\_\_\_

7) 0.0054 kg \_\_\_\_\_

8) 360,000 s \_\_\_\_\_

9) 0.00000687 kg \_\_\_\_\_

10) 38,000 m \_\_\_\_\_

11) 5060 s \_\_\_\_\_

12) 0.000000076 kg \_\_\_\_\_

13) 685,000,000,000 \_\_\_\_\_

14) 89,000,000,000 s \_\_\_\_\_

15) 4,500,000 m \_\_\_\_\_

*Please convert the following numbers in scientific notation back into regular notation*

16)  $8.54 \times 10^5$  \_\_\_\_\_

17)  $2.101 \times 10^{-8}$  \_\_\_\_\_

18)  $3.051 \times 10^7$  \_\_\_\_\_

19)  $5.94 \times 10^{-3}$  \_\_\_\_\_

20)  $3.86 \times 10^2$  \_\_\_\_\_

21)  $8.348 \times 10^6$  km \_\_\_\_\_

22)  $3.402 \times 10^3$  g \_\_\_\_\_

23)  $7.6352 \times 10^{-3}$  kg \_\_\_\_\_

24)  $3.02 \times 10^{-5}$  s \_\_\_\_\_

25)  $3.1587 \times 10^{-8}$  g \_\_\_\_\_

26)  $1.0200 \times 10^5$  kg \_\_\_\_\_

27)  $4.38 \times 10^4$  mm \_\_\_\_\_

28)  $5.72 \times 10^{-4}$  cm \_\_\_\_\_