

Name: Selected Answers Period: \_\_\_\_\_

Score: \_\_\_\_\_ / \_\_\_\_\_ %

## HW 6-1 - Scientific Notation

Identify if each number is written in scientific notation. If it is not, explain why not.

1.  $14 \times 10^8$

No,  
Not between  
1-10

3.  $4.79 \times 10^{-8}$

Yes,  
between 1-10

5.  $0.15 \times 10^{22}$

No,  
Not between  
1-10

2.  $2.6 \times 10^{12}$

4.  $3.99 \times 10^{16}$

6.  $6 \times 10^3$

Write the number in standard form.

7.  $4 \times 10^9$

4,000,000,000

9.  $3.7 \times 10^6$

3,700,000

11.  $7.62 \times 10^{10}$

76,200,000,000

8.  $2 \times 10^{-5}$

10.  $4.12 \times 10^{-3}$

12.  $9.908 \times 10^{-12}$

13. Light travels at  $3 \times 10^8$  meters per second.

a. Write the speed of light in standard form.

300,000,000

b. How far has light traveled after 5 seconds?

1,500,000,000

Write the number in scientific notation.

14. 0.00002031

18. 0.1300000

22. 78,900,000

15. 43,680,000,000

$4.368 \times 10^{10}$

19. 500,300,000,000

$5.003 \times 10^{11}$

23. 0.000001

$1.0 \times 10^{-6}$

16. 0.02009

20. 89,000

17. 608,000,000

$6.08 \times 10^8$

21. 0.00002007

$2.007 \times 10^{-5}$



Write the number in standard form.

24.  $8.25 \times 10^{-4}$

25.  $3.14 \times 10^8$

314,000,000

26.  $1.111 \times 10^{-7}$

27.  $9.876 \times 10^3$

9,876

28.  $7.034 \times 10^{-1}$

29.  $1.234 \times 10^9$

1,234,000,000

30.  $5.027 \times 10^{11}$

31.  $4.2 \times 10^1$

42

32.  $3.303 \times 10^3$

33.  $5.008 \times 10^{-10}$

0.0000000005008

Determine which number is bigger (> or <)

34.  $1.2 \times 10^6$  \_\_\_\_\_  $9.1 \times 10^5$

36.  $1.23 \times 10^4$  \_\_\_\_\_  $6.7086 \times 10^3$

35.  $4.0037 \times 10^8$  <  $6.5 \times 10^8$

37.  $2.86 \times 10^5$  >  $3.1 \times 10^2$

Convert to scientific notation then order the following numbers from least to greatest.

38.  $3.14 \times 10^3$ ,  $5.319 \times 10^4$ , 3040,  $0.523 \times 10^3$ , 55,683

39.  $5.368 \times 10^7$ ,  $4.269 \times 10^9$ ,  $9.2 \times 10^6$ , 376,000,  $8.34 \times 10^{-8}$ , 57,000,000

$8.34 \times 10^{-8}$ , 376,000,  $9.2 \times 10^6$ ,  $5.368 \times 10^7$ , 57,000,000,  $4.269 \times 10^9$