

HW 6-1 - Scientific Notation

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

1. 14×10^8

NO. It should be 1.4 NOT 14.

3. 4.79×10^{-8}

Yes

5. 0.15×10^{22}

NO. Should be 1.5. The decimal needs moved.

2. 2.6×10^{12}

4. 3.99×10^{16}

6. 6×10^3

Write the number in standard form.

7. 4×10^9

4,000,000,000

9. 3.7×10^6

3,700,000

11. 7.62×10^{10}

76,200,000,000

8. 2×10^{-5}

10. 4.12×10^{-3}

12. 9.908×10^{-12}

13. Light travels at 3×10^8 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

4.368×10^{10}

19. 500,300,000,000

5.003×10^{11}

23. 0.000001

1×10^{-6}

16. 0.02009

20. 89,000

17. 608,000,000

6.08×10^8

21. 0.00002007

2.007×10^{-5}

Write the number in standard form.

24. 8.25×10^{-4}

25. 3.14×10^8

314,000,000

26. 1.111×10^{-7}

27. 9.876×10^3

9,876

28. 7.034×10^{-1}

29. 1.234×10^9

1,234,000,000

30. 5.027×10^{11}

31. 4.2×10^1

42

32. 3.303×10^3

33. 5.008×10^{-10}

0.0000000005008

Determine which number is bigger (> or <)

34. 1.2×10^6 _____ 9.1×10^5

36. 1.23×10^4 _____ 6.7086×10^3

35. 4.0037×10^8 _____ 6.5×10^8

37. 2.86×10^5 _____ 3.1×10^2

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

38. 3.14×10^3 , 5.319×10^4 , 3040, 0.523×10^3 , 55,683

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

3.76×10^5

5.7×10^7

Answer: 8.34×10^{-8} , 3.76×10^5 , 9.2×10^6 , 5.368×10^7 ,

5.7×10^7 , 4.269×10^9