

13.7 SCIENTIFIC NOTATION

A. Multiply the following by the powers of ten indicated by moving the decimal the required number of spaces.

1. 5.4778×10^6

2. 0.087844706×10^8

3. $389.8116798 \times 10^{13}$

4. $842121094.22 \times 10^{-7}$

5. 486×10^{-9}

6. 56.7×10^0

7. 8.34×10^4

8. 7.6×10^{-5}

9. 8.3652×10^3

10. 76.35×10^8

B. Write each of the following in standard form.

1. 3.45×10^6

2. -6.786×10^5

3. 5.7429×10^9

4. 8.54×10^{-7}

5. 7.951×10^{-3}

C. Write the following as powers of ten. (The first one is done for you.)

1. $1000 = 10^3$

2. 100

3. 10 000

4. 1 000 000

5. 1 000 000 000

6. 10

7. 10 000 000 000

8. 100 000

9. 100 000 000

10. 100 000 000 000 000

11. $\frac{1}{100}$

12. $\frac{1}{1000}$

13. $\frac{1}{100\,000}$

14. $\frac{1}{1\,000\,000\,000}$

15. $\frac{1}{10}$

16. $\frac{1}{1\,000\,000\,000\,000\,000\,000}$

17. $\frac{1}{10\,000}$

18. $\frac{1}{100\,000\,000}$

19. $\frac{1}{1}$

20. $\frac{100}{1000}$

D. Write each of the following in scientific notation.

1. 866 000

2. 58 700

3. 4 700 000

4. 0.000 687 3

5. 0.000 84

6. 156 800 000

7. 0.000 35

8. -6 536 000 000

9. 500 000 000

10. 55 000 000

11. -0.000 000 000 792

12. 0.000 000 000 600 05

13. -4 790 000 000

14. 500

15. 6 306 000

16. 54 000 000 000

17. 763 000 000

18. -300 700 000 000

19. 0.000 000 67

20. 5 632.87