

BASIC SKILL**Mathematics Assessment**

Write the following numbers in scientific notation.

1. 156.90 _____

3. 0.0345 _____

2. 12 000 _____

4. 0.008 90 _____

Expand the following numbers.

5. 1.23×10^6 _____

7. 1.54×10^4 _____

6. 2.5×10^{-3} _____

8. 5.67×10^{-1} _____

Solve the following and put your answer in scientific notation.

9. $\frac{6.6 \times 10^{-8}}{3.3 \times 10^{-4}} =$ _____

13. $(1.56 \times 10^{-7}) + (2.43 \times 10^{-8}) =$ _____

10. $\frac{7.4 \times 10^{10}}{3.7 \times 10^3} =$ _____

14. $(2.5 \times 10^{-6}) \times (3.0 \times 10^{-7}) =$ _____

11. $\frac{2.5 \times 10^8}{7.5 \times 10^2} =$ _____

15. $(1.2 \times 10^{-9}) \times (1.2 \times 10^7) =$ _____

16. $(2.3 \times 10^4) \times (2.0 \times 10^{-3}) =$ _____

12. $(2.67 \times 10^{-3}) - (9.5 \times 10^{-4})$ _____

Give the number of significant digits in the following measurements.

17. 2.9910 m _____

19. 0.006 70 kg _____

18. 5600 km _____

20. 809 g _____

Carry out the following problems and give the answer in the correct number of significant digits.

21. $\frac{2.674 \text{ m}}{2.0 \text{ m}}$ _____

23. $9.0 \text{ cm} + 7.66 \text{ cm} + 5.44 \text{ cm}$ _____

22. $5.25 \text{ L} \times 1.3 \text{ L}$ _____

24. $10.07 \text{ g} - 3.1 \text{ g}$ _____

Solve for x in the following problems.

25. $\frac{3x}{y} = \frac{6g}{b}$ _____

27. $\frac{2x^2}{3} = dg$ _____

26. $d = \frac{t}{x}$ _____

28. $\frac{2\sqrt{x}}{c} = y$ _____

Make the following conversions.

29. 4008 g = _____ mg

31. 239 mm = _____ cm

30. 48 mL = _____ L

32. 38 kg = _____ mg