Date _____ Period _____ Name _____

1 Physics Skills

Use with Chapter 2.

Mathematics Assessment

Write the following numbers in scientific notation.

1. 156.90 _____
2. 12 000 _____
3. 0.0345 _____
4. 0.008 90 _____

Expand the following numbers.

5. 1.23×10^{6} _____
6. 2.5×10^{-3} _____
7. 1.54×10^{4} _____
8. 5.67×10^{-1} _____

Solve the following and put your answer in scientific notation.

9. $\frac{6.6 \times 10^{-8}}{3.3 \times 10^{-4}} =$ _____
10. $\frac{7.4 \times 10^{10}}{3.7 \times 10^{3}} =$ _____
11. $\frac{2.5 \times 10^{8}}{7.5 \times 10^{2}} =$ _____
12. $(2.67 \times 10^{-3}) - (9.5 \times 10^{-4}) =$ _____
13. $(1.56 \times 10^{-7}) + (2.43 \times 10^{-8}) =$ _____
14. $(2.5 \times 10^{-6}) \times (3.0 \times 10^{-7}) =$ _____
15. $(1.2 \times 10^{-9}) \times (1.2 \times 10^{7}) =$ _____
16. $(2.3 \times 10^{4}) \times (2.0 \times 10^{-3}) =$ _____

Give the number of significant digits in the following measurements.

17. 2.9910 m _____
18. 5600 km _____
19. 0.006 70 kg _____
20. 809 g _____

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

21. $\frac{2.674 \text{ m}}{2.0 \text{ m}} =$ _____
22. $5.25 \text{ L} \times 1.3 \text{ L} =$ _____
23. $9.0 \text{ cm} + 7.66 \text{ cm} + 5.44 \text{ cm} =$ _____
24. $10.07 \text{ g} - 3.1 \text{ g} =$ _____

Name _____

1 Physics Skills

Solve for x in the following problems.

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

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

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

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

Make the following conversions.

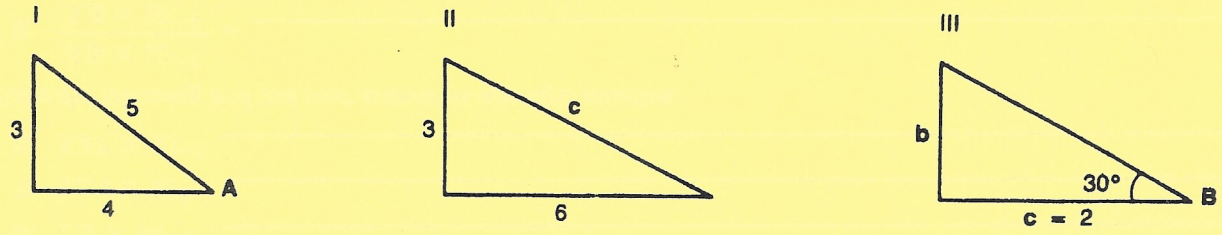
29. 4008 g = _____ mg

30. 48 mL = _____ L

31. 239 mm = _____ cm

32. 38 kg = _____ mg

Answer the questions that refer to the following triangles.



33. For triangle I, what is the cosine of angle A?

_____

34. What is the tangent of angle A for triangle I?

_____

35. Find side c for triangle II.

_____

36. For triangle III, express side b in terms of a trigonometric function of angle B and side c.

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