

Name: \_\_\_\_\_

Class Period: \_\_\_\_\_

Honors Physics: Math Skills  
Part I

**Scientific Notation**

*Express the following numbers in scientific notation:*

1) 252,500,000 \_\_\_\_\_

2) 520 \_\_\_\_\_

3) 0.000324 \_\_\_\_\_

4) 0.00204 \_\_\_\_\_

5) 263,200 \_\_\_\_\_

*Expand the following numbers to decimal form:*

6)  $2 \times 10^{-3}$  \_\_\_\_\_

7)  $4.32 \times 10^{-5}$  \_\_\_\_\_

8)  $2.506 \times 10^6$  \_\_\_\_\_

9)  $60252 \times 10^{-4}$  \_\_\_\_\_

10)  $3.42 \times 10^3$  \_\_\_\_\_

*Solve the following problems. Express your answer in scientific notation (calculators can be used):*

11)  $5 \times 10^{-2} + 3 \times 10^{-1} =$  \_\_\_\_\_

12)  $6 \times 10^5 - 3 \times 10^5 =$  \_\_\_\_\_

13)  $(5 \times 10^{11})(2 \times 10^2) =$  \_\_\_\_\_

14)  $\frac{6 \times 10^6}{3 \times 10^{-2}} =$  \_\_\_\_\_

15)  $\frac{(2 \times 10^6)(6 \times 10^5)}{3 \times 10^{-3}} =$  \_\_\_\_\_

**Significant Figures**

Determine the number of significant figures in the following numbers:

16) 2002.2 \_\_\_\_\_

17) 430,000,000 \_\_\_\_\_

18) 0.0002003 \_\_\_\_\_

19) 265 \_\_\_\_\_

20) 2503.00 \_\_\_\_\_

**Algebra**

Solve for the unidentified variable. Use the area to right to show your work.

21)  $\frac{3x}{y} = \frac{6g}{b}$        $x = \underline{\hspace{2cm}}$

22)  $\frac{2x^2}{3} = dg$        $x = \underline{\hspace{2cm}}$

23)  $\frac{2\sqrt{y}}{c} = x$        $y = \underline{\hspace{2cm}}$

24)  $E = mc^2$        $m = \underline{\hspace{2cm}}$

25)  $a = v_f - \frac{v_o}{t}$        $v_f = \underline{\hspace{2cm}}$

26)  $F = \frac{G \cdot m_1 \cdot m_2}{r^2}$        $r = \underline{\hspace{2cm}}$