

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

/35

### Physics Math Practice Set

Part I: Significant Digits: How many significant digits do the following numbers have?

1.) 585000 \_\_\_\_\_ 2.) 4650. \_\_\_\_\_ 3.) 8004 \_\_\_\_\_

4.) 0.00234 \_\_\_\_\_ 5.) 100 \_\_\_\_\_ 6.) 100.0 \_\_\_\_\_

Round each of the following numbers to two significant digits.

7.) 19.501 \_\_\_\_\_ 8.) 0.00327 \_\_\_\_\_ 9.) 100.0 \_\_\_\_\_

10.)  $4.57 \times 10^5$  \_\_\_\_\_ 11.) 3.45 \_\_\_\_\_ 12.) 0.0335 \_\_\_\_\_

Part II: Calculations Using Significant Figures

13.)  $12.005 \text{ m} + 245.21 \text{ m} + 10.003 \text{ m} =$  \_\_\_\_\_

14.)  $18.1 \text{ cm} - 0.345 \text{ cm} =$  \_\_\_\_\_

15.)  $4.55 \text{ km} \cdot 1.0 \text{ km} =$  \_\_\_\_\_

16.)  $95.325 \text{ ms} / 0.1000 \text{ ms} =$  \_\_\_\_\_

17.)  $(6.215 \times 10^{18} \text{ dm}) \cdot (2.08 \times 10^{-19} \text{ dm}) =$  \_\_\_\_\_

18.)  $(1.22 \times 10^{30} \text{ cs}) / (3.05 \times 10^3 \text{ cs}) =$  \_\_\_\_\_

19.)  $35 \text{ Mm} / 0.000455 \text{ Mm} =$  \_\_\_\_\_

20.)  $(6.25 \times 10^{-10} \text{ s}) / (5.0 \times 10^8 \text{ s}) =$  \_\_\_\_\_

21.)  $(7.9 \times 10^5 \text{ hm}) - (4.00 \times 10^3 \text{ km}) =$  \_\_\_\_\_

22.)  $(6.00 \times 10^8 \text{ } \mu\text{s}) / (4.0 \times 10^{23} \text{ } \mu\text{s}) =$  \_\_\_\_\_

Part III: Convert the following numbers to scientific notation

23.) 3000. \_\_\_\_\_

24.) 0.0041 \_\_\_\_\_

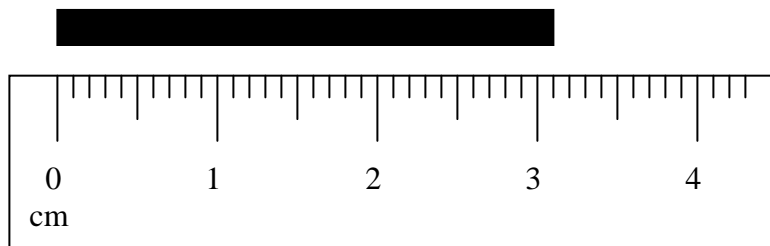
Convert the following numbers from scientific notation to regular notation.

25.)  $3.43 \times 10^{-2}$  \_\_\_\_\_

26.)  $8.52000 \times 10^4$  \_\_\_\_\_

Part IV: Measuring using significant digits

27.) What is the length of the black rectangle recorded properly?



Answer \_\_\_\_\_

Part V: Complex Calculations

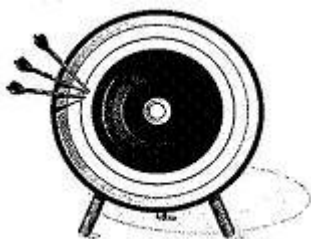
28.)  $\frac{(5.34 \times 10^{-42} \text{ m}) \cdot (6.387 \times 10^6 \text{ m})}{(2.68 \times 10^{-8} \text{ m})} =$  \_\_\_\_\_

29.)  $\frac{(1.46 \times 10^{-38} \text{ s}) - (5.706 \times 10^{-39} \text{ s})}{(8.98 \times 10^{-8} \text{ s})} =$  \_\_\_\_\_

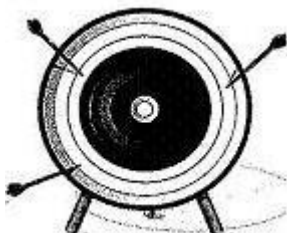
30.)  $\frac{(7.289 \times 10^{-3} \text{ cm}) + (7.29 \times 10^{-2} \text{ cm})}{(3.60 \times 10^{-54} \text{ mm})} =$  \_\_\_\_\_

31.)  $\frac{(7.962 \times 10^{-4} \text{ ds})}{(5.24 \times 10^{-15} \text{ ds})} - 1.65 \times 10^{10} =$  \_\_\_\_\_

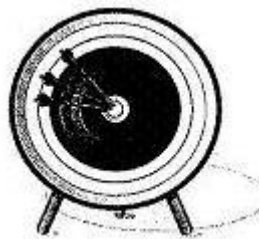
32. - 35.) Circle the word or words that apply to each target. Don't circle any words if they don't apply.



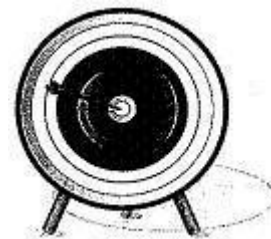
Accurate  
Precise



Accurate  
Precise



Accurate  
Precise



Accurate  
Precise