

Name \_\_\_\_\_ **Answer Key** \_\_\_\_\_  
Physics \_\_\_\_\_  
Period \_\_\_\_\_



Date \_\_\_\_\_  
Measure & Math WS #4H  
Mrs. Nadworny

## Significant Figures

**Directions:** Read online textbook pages 17 – 19 and solve the following problems using correct significant figures and scientific notation. This worksheet is not testing you on your addition/subtraction or multiplication/division skills but rather how well you know sig fig rules.

1)  $17.0 \text{ cm} + 3 \text{ cm} = 20. \text{ cm}$

8)  $17.0 \text{ cm} \times 3 \text{ cm} = 50 \text{ cm}^2$

2)  $17.00 \text{ cm} + 3.0 \text{ cm} = 20.0 \text{ cm}$

9)  $17.00 \text{ cm} \times 3.0 \text{ cm} = 51 \text{ cm}^2$

3)  $40 \text{ cm} + 3 \text{ cm} = 40 \text{ cm}$

10)  $40 \text{ N} \times 3.0 \text{ m} = 100 \text{ Nm}$

4)  $1.7 \times 10^4 \text{ cm} + 3.00 \times 10^6 \text{ cm} =$   
 $1.7 \times 10^4 \text{ cm} + 300. \times 10^4 \text{ cm} = 302 \times 10^4 \text{ cm}$   
 $.017 \times 10^6 \text{ cm} + 3.00 \times 10^6 \text{ cm} = 3.02 \times 10^6 \text{ cm}$

11)  $1.7 \times 10^7 \text{ cm} \times 3.00 \times 10^9 \text{ cm} =$   
 $5.1 \times 10^{16} \text{ cm}^2$

5)  $0.17 \text{ m} - 3.00 \text{ cm} =$   
 $17 \text{ cm} - 3.00 \text{ cm} = 14 \text{ cm}$   
 $0.17\text{m} - .0300 \text{ m} = 0.14 \text{ m}$

12)  $17 \text{ m} \div 3.0 \text{ s} = 5.7 \text{ m/s}$

6)  $1700 \text{ cm} - 3.0 \text{ cm} = 1700 \text{ cm}$

13)  $17 \text{ m} \div 3 \text{ s} = 6 \text{ m/s}$

7)  $1.7 \times 10^2 \text{ cm} - 3.00 \times 10^1 \text{ cm} =$   
 $17 \times 10^1 \text{ cm} - 3.00 \times 10^1 \text{ cm} = 14 \times 10^1 \text{ cm}$   
 $1.7 \times 10^2 \text{ cm} - .300 \times 10^2 \text{ cm} = 1.4 \times 10^2 \text{ cm}$

14)  $1.700 \times 10^7 \text{ cm} \div 3.00 \times 10^2 \text{ cm} =$   
 $5.67 \times 10^4$

Answers in size order: 0.14, 5.7, 6, 20., 20.0, 40, 50, 51, 100,  $1.4 \times 10^2$ , 1700,  $5.67 \times 10^4$ ,  $3.02 \times 10^6$ ,  $5.1 \times 10^{16}$