

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

## Rules for Significant Figures

1. ALL non-zero digits are significant.  
The digits 1, 2, 3, 4, 5, 6, 7, 8, and 9 are significant digits.

- a. **123**            **3 sigfigs**  
b. **78**             **2 sigfigs**  
c. **5.32**           **3 sigfigs**

2. Leading zeros are NEVER significant.

- a. **0.5**             **1 sigfig**  
b. **0.05**           **1 sigfig**  
c. **0.007**          **1 sigfig**

3. Embedded zeros are ALWAYS significant.

- a. **307**             **3 sigfigs**  
b. **3005**           **4 sigfigs**  
c. **20507**          **5 sigfigs**

4. Trailing zeros are ONLY significant IF the number contains a decimal place.

- a. **20**              **1 sigfig**  
b. **20.**             **2 sigfigs**  
c. **200**            **1 sigfig**  
d. **200.**           **3 sigfigs**  
e. **20.0**           **3 sigfigs**  
f. **17.0**           **3 sigfigs**  
g. **1.000**          **4 sigfigs**  
h. **1000**           **1 sigfigs**

Combine all the rules:

- 101.0**            **4 sigfigs**  
**1010**            **3 sigfigs**  
**0.0010**         **2 sigfigs**  
**0.0005**         **1 sigfig**  
**0.0020**         **2 sigfig**  
**20000**           **1 sigfig**

Now it is your turn. Use the rules to determine the number of significant digits. Write the number of sigfigs in the space provided.

- 1)    **100**            \_\_\_\_\_  
2)    **100.**            \_\_\_\_\_  
3)    **20.0**            \_\_\_\_\_  
4)    **0.20**            \_\_\_\_\_  
5)    **0.02**            \_\_\_\_\_  
6)    **2002**            \_\_\_\_\_  
7)    **30030**           \_\_\_\_\_  
8)    **.0505**           \_\_\_\_\_  
9)    **55**                \_\_\_\_\_  
10)   **570**             \_\_\_\_\_  
11)   **808.00**         \_\_\_\_\_  
12)   **.0080**           \_\_\_\_\_  
13)   **10**                \_\_\_\_\_  
14)   **2307**            \_\_\_\_\_  
15)   **43050**           \_\_\_\_\_  
16)   **0.000900**     \_\_\_\_\_  
17)   **.1**                \_\_\_\_\_  
18)   **.60**              \_\_\_\_\_  
19)   **18**                \_\_\_\_\_  
20)   **450020**        \_\_\_\_\_