Significant Digits

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - help us round when working with measurements.

Example 1: Is the decimal Absent (A) or Present (P)?

A) 402.1 \_\_\_ B) 820 \_\_\_ C) 0.040 \_\_\_ D) 5600. \_\_\_ E) 5600 \_\_\_

![[Country map of United States]]()

**\* To determine the number of significant digits (SD) there are in a number:**

1) Decide if the decimal is **P**resent or Absent.

2) If it is absent, move from the Atlantic direction until you reach a non-zero digit. Then count that digit and anything past it.

3) If it is Present, move from the Pacific direction until you reach a non-zero digit. Then count that digit and anything past it.

Example: How many SD’s are in the #?

1) 400 2) 200.0 3) 0.0001 4) 218

5) 320 6) 0.00530 7) 22,568 8) 4755.50

Adding and Subtracting: Only show as many decimal places as the measurements

 having the **fewest** number of decimal places.

Hint: Draw a line to determine where to round to.

Examples: Add or subtract and round using significant digit rules.

1) 357.89 2) 17.95 3) 5.5

 + 0.002 32.42 3.7

 + 50 + 2.97

4) 84.675 5) 75 6) 10

 - 3 \_\_ - 2.55 - 9.9

Multiplying and Dividing: Your answer may only show as many significant digits as

 the multiplied or divided measurement showing the

 least number of significant digits.

Examples: Multiply or divide and round using significant digit rules.

1) 50.0 2) 2.3 x 3.45 x 7.42 3) 1.0007

 x 2.00 x 0.009

4)  5) 