Remember These Rules:

- Digits from 1-9 are always significant.
- Zeros between two other significant digits are always significant
- One or more additional zeros to the right of both the decimal place and another significant digit are significant.
- Zeros used solely for spacing the decimal point (placeholders) are not significant.

Underline the significant digits in each of the following measurements

1. 10.0m	4. 1.0x103	7. 1.110m
2. 0.010m	5. 6.100m	8. 1.01m
3. 77.01m	6. 0.001m	9. 93.0m

Calculate the answer to each of the following expressions to the correct number of significant digits

1	. 2.20cm x 1.1cm=	6. 7.77cm + 0.506cm=		
2	. 2.20cm - 1.1cm=	7. (1.23cm + 6.6cm) x 5.00cm=		
3	. (2.20g)/(1.1cm3)	8. 5.89cm x (1.0cm - 7.633cm)=		
4	. 1.034cm + 6.6cm -4.01cm=	9. (5.79cm x 5.5cm) - 6.02cm2=		
5	. 69.0cm + 0.002cm=	10. 7001cm -1.00cm=		
To t 1	the correct number of significant digits, . millimeters in 2.0m	calculate the number of 3. millimeters in 23.32cm		
2	. kilograms in 23g	4. centimeters in 0.0010m		
Calculate each answer to the correct number of significant digits 1. (2.46g)/(1.23mL)= 4. 18.00mL(1.50g/mL)=				
2	. (246g)/(1.23L)=	5. 0.170m - 2.2mm=		
3	. (393g)/(2L)=	6. 161cm + 1.53cm=		

How many significant figures are in each of the following numbers?

1. 5.40	5. 801.5	9. 101.0100
2. 1.2 x 10 ³	6. 0.0102	10. 2,370.0
3. 210	7. 1,000	
4. 0.00120	8. 9.010 x 10 ⁻⁶	

11) Why are significant figures important when taking data in the laboratory?

12) Why are significant figures NOT important when solving problems in your math class?

13) Using two different instruments, I measured the length of my foot to be 27 centimeters and 27.00 centimeters. Explain the difference between these two measurements.

Identify the number of significant digits show in each of the following examples.

1. 400	7. 22 568	13.	635.000
2. 200.0	8. 4755.50	14.	22 000
3. 0.0001	9. 4.0 x 10 ³	15.	5201
4. 218	10. 1.67 x 10 ⁻⁸	16.	81
5. 320	11. 5×10^{12}		
6. 0.00530	12. 2.00×10^4		