What are slopes good for 2?

EHS CA3MIS+RY

Mr. Genest

Name ANSWERS

Date _____

Tutors! Adults! Help this young chemist by visiting **http:genest.weebly.com** with any smart phone

Write each number in standard format.

1) 1.152×10^{7} = 11520000.

2) 7.043×10^{-5} = 0.00007043

3) 7.5777×10^{-9} = 0.000000007 5777 (EIGHT ZEROES)

4) 8.0217×10^{-3} = 0.0080217

5) 7.1378×10^{4} = 71378

6) 4.326×10^{-1} = 0.4326

7) 8.36×10^{4} = 83600

8) 3.92×10^{-2} = 0.0392

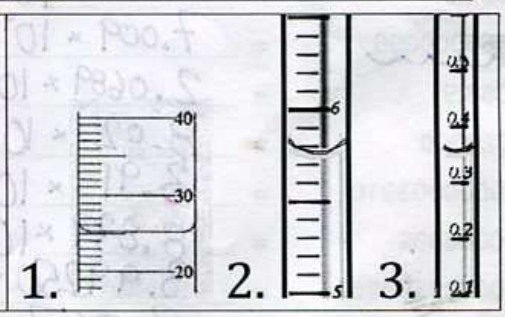
9) 5.67×10^{-8} = 0.0000000567 (seven zeroes)

10) 1.1318×10^{5} = 113180

1) What is the of water in container 1?
Volume: 25.2 mL

2) What is the of water in container 2?
Volume: 5.76 mL

3) What is the of water in container 3?
Volume: 0.34



4) Calculate the volume of a block that has the dimensions:
L = 6.20 cm, W = 5.25 cm, H = 1.00 cm

Show your calculations and present your answer to the proper precision (number of significant digits).
Remember to show the units on your answer.

$V = L \cdot W \cdot H$

$V = (6.20\text{cm})(5.25\text{cm})(1.00\text{cm})$

$V = 32.55 \approx 32.6\ \text{cm}^3$

don't forget units ☺

5) If the density of a substance is 6.505 $\frac{g}{cm^3}$ and the volume of a sample of this substance is 13.1cm^3, what is the mass of this sample?

Strategy: $\frac{cm^3}{cm^2} = cm$

Lonely number × RATIO = Numberless measurement ⇨ $13.1\,cm^3 \times \left(\frac{6.505\,grams}{1\,cm^3}\right) = 85.2\,grams$

6) A piece of paper is known to have an area of 30.2 cm^2 and has a volume of 0.0052 cm^3. What is the thickness of this paper?

OOPS TYPO — SHOULD SAY 0.0052

Strategy: $\frac{cm^3}{cm^2} = cm$

$\frac{0.0052\,cm^3}{30.2\,cm^2} = 0.00017\overline{2185} \approx 0.00017\,cm$

Write each number in scientific notation.

11) 529000000 = 5.29×10^8

12) 5.29 = 5.29×10^0

13) 982.05 = 9.82×10^2

14) 7009000000 = 7.009×10^9

15) 2068.9 = 2.0689×10^3

16) 8020000 = 8.02×10^6

17) 0.0000003910 = 3.91×10^{-7} SMALL NUMBER SO IT GETS A NEGATIVE EXPONE

18) 0.0008839 = 8.839×10^{-4}

19) 0.00000399250 = 3.99250×10^{-6}

20) 0.0002867 = 2.867×10^{-4}