Dimensional Analysis Exam Review

1) How many kilometers are there in 2.34 meters?

$$\frac{2.34 \, \text{pr}}{1000 \, \text{pr}} = \frac{2.34 \, \text{km}}{1000}$$

0.00234 km

3) What conversion factor would you use to convert centimeters to meters?

M:5.W d:XM

xun

My 100cm

- 4) 270 kg = ____ g
 - 9:270kg w:?9

270×9 10009 = 27 1 ×5

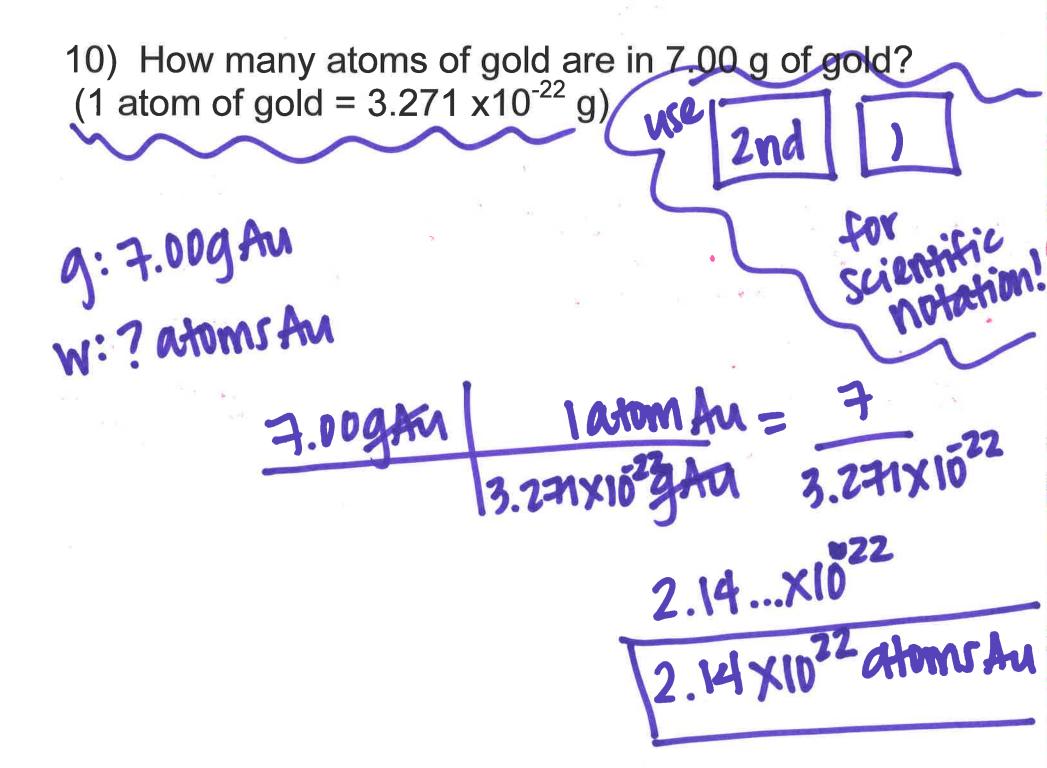
- 5) 2.5 L = ____ mL
- 9:2.5L
- M: ? ML
- 1 r= 1000Mr

2.5× 1000ml = 2500 ml 0r 1 k 2.5×10 ml

6) 63 cm =mm 63cm 10mm= 630mm 1:63cm w:?mm 10mm = 1cm 1 M=1000M 100 CM 1 100 7) $1 \text{ m}^2 =$ cm^2 9:1m2 1m=1002m2

8) How many seconds are there in 2.00 years?

lmin=wosec



11) How many grams per milliliter are there in 5.78 1000g=1kg 1L=1000mL

kilograms per liter?

9:5.78 Kg/L w:?g/ml

1 kg | 1000(mc)

12) An object is traveling at a speed of 7500.0 centimeters per second. How many kilometers per day is this?

9: 7500.0 cm/s w: 7 km/d 1000m=1m km/d 1000m=1km u05=1min 1000m=1km 24hr=1d

= 648000000 day - 100000 day = 6480.0 rm/d 13) The speed of a rocket is measured to be 145.3 kilometers per hour. How many meters per second is this?

9:149.3 km/hr w:3?mls 1000m = 1km 1Mr = 60min 1min = 60%C

40.361... 40.36MIS 14) Chemists have determined that 18.0 grams of water consists of 6.02 x 10²³ molecules. Assuming that a teaspoon holds 3.70 mL of water, determine the number of molecules in 1.00 teaspoon of water. (One gram of water equals one milliliter of water.)

g:1.00tsp

 $8.09 = 6.02 \times 10 \text{ m/c}$ 1459 = 3.70 m/c 14 = 1 m/c

1.00tsp 3.70mc 19 6.02x10 mig 2.2274 E2

1.2374... E23 1.24×10²³ m/o H₂0 15) You're throwing a pizza party for 15 and figure each person might eat 4 slices. How much is the pizza going to cost you? You call up the pizza place and learn that each pizza will cost you \$14.78 and will be cut into 12 slices. You tell them you'll call back. Do you have

enough money?

9: 1 party

1 Party 15 parsons 4 slices 1 piesea \$14.78 1 party 1 parson 12 slices 1 piesea

1373.90