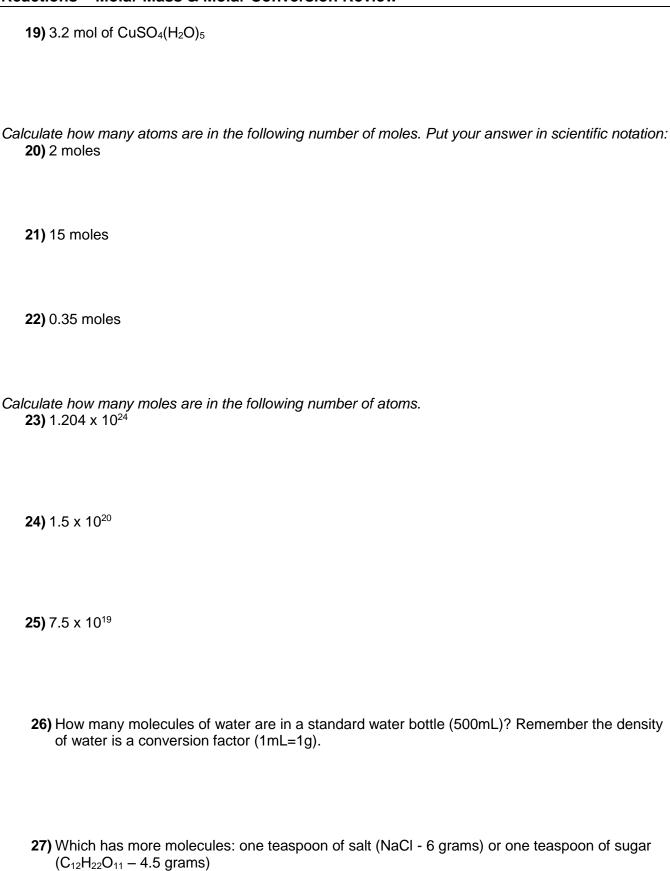
Dougherty Valley HS Chemistry Reactions – Molar Mass & Molar Conversion Review



Name:			Period:	Seat#:
	owing molar masses. N			vork for #1-4:
1) Cl ₂		2) KOH		
3) FeCl ₃		4) (NH ₄)) ₂ SO ₄	
,			,-	
	m in your <u>calculator</u> . Yo	ou can show your wo	rk if needed, but the g	oal is to not have to
	nswers have units!	7) 115	a) COLF	0) Ma(OLI)
5) SO ₂	6) BF ₃	7) UF ₆	8) CCl ₂ F ₂	9) Mg(OH) ₂
10) H ₃ PO ₄	11) CH₃COOH	12) Pb(NO ₃) ₂	13) Ga ₂ (SO ₃) ₃	14) C ₆ H ₁₂ O ₆
15) Prozac, C ₁₇ H ₁	_{I8} F₃NO (a widely used ar	ntidepressant that inhib	its the uptake of serotor	nin by the brain.)
For the remaining	g problems on this wor	ksheet, show all work	using dimensional ar	nalysis. You should
	mensional analysis line			
	ut you should only be բ nd units on your answe		ne! include units, snov	w canceling units,
jet an answer, ar	ia anno on your answe	1.		
	ny moles are in the follow	ving masses:		
16) 125 g of H ₂	₂ SO ₄			

Calculate the mass (in grams) of the following number of moles: **18)** 0.5 mole of H₂SO₄

17) 35 g of CuSO₄(H₂O)₅



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28) How many atoms are in one teaspoon of salt (atoms, not molecules!)? One teaspoon of salt weighs 6 grams.
29) One can of regular Coca Cola has 39 grams of sugar (C ₁₂ H ₂₂ O ₁₁). How many molecules of sugar are you drinking?
Under "standard" conditions (0°C temperature, and 1atm of pressure) one mole of a gas will take upper 22.4 L of space, regardless of which gas it is (unless it is a "non-ideal" gas which we aren't worried about). Using this "molar volume" as a conversion factor, do the following problems as dimensional analysis problems. Same requirements apply as in the previous questions on this worksheet. ($\frac{1mol}{22.4L}$
Calculate how many moles are in the following number of liters. 30) 10.9 liters
Calculate how many atoms are in the following number of liters. 31) 0.75 liters
Calculate how many liters the following number of atoms would take up. 32) 4.6 x 10 ³⁵ atoms
Calculate the mass of the following. 33) 35 liters of Cl ₂ gas
Calculate the volume of the following. 34) 40 kg of water vapor gas