

2017 AP CHEMISTRY SUMMER WORK

Welcome to AP Chemistry. In order to cover all of the material I have found that you need to start before September to review your sophomore chemistry course.

I will collect your work on the first day of school. You will receive a homework grade for your work. Use the answer sheet provided.

I encourage you to work together with your classmates.

After a short period of review, we will have a test over this assignment.

Chapter 1: 5, 28, 32, 64, 83

Chapter 2: 11, 19,20,28,50,64,68,74

Chapter 3: 16, 30,56,60,68,74,82,90,104

Chapter 4 24, 36, 48, 50, 54bc, 64, 70

Chapter 5: 34, 36,38,40,46, 95b-d

In addition to the above questions, please

Know all the ions pgs 58,59, and 62

Know your solubility rules on pg 144

Materials : one 3 inch binder, 11 dividers, and a graphing calculator

Obtain 11 dividers for your binder Label the dividers with these chapters
1-4 Intro
5 Gases
13 Equilibrium
14,15 Acids/Bases/Buffers
7-9 Atomic Structure
10 Intermolecular Forces
6,16 Thermodynamics
12 Kinetics
17 Electrochemistry
AP exam review
Labs

Directions: **No credit unless work is shown. Pay attention to sig figs. Box answers.**
Credit will not be awarded for illegible work.

Ch. 1

5a) _____

5b) _____ change.

Explanation:

28a) _____

c) _____

e) _____

g) _____

b) _____

d) _____

f) _____

h) _____

32a) _____

b) _____

c) _____

d) _____

64a) _____

b) _____

c) _____

83a) _____

b) _____

c) _____

Ch 2

11.

19. JJ. Thomsen: _____

Rutherford: _____

20. Modern view

28)

50) symbol	#p+	#n	#e-	Net charge

64a)	b	c	d	e	f
g	h	i	j	k	l

68a)	b	c	d	e	f
g	h	i	j	k	l

74

Ion	#p+	#e-	formula
A			
B			
C			
D			
E			
F			
G			
H			

Ch 3

16.

30. You must show work! Box answer

56: show work

Mass of sample	Moles of sample	Molecules in sample
4.24 g C ₆ H ₆		
	0.224 mol H ₂ O	
		2.71 x 10 ²²

60.

% C = _____ % H = _____

% O = _____ % F = _____

68. a) _____ b) _____ c) _____ d) _____

Show work here;

74. Box answers

82a. _____

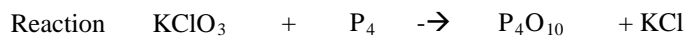
82b. _____

82c. _____

82d. _____

90. Remember the cliffs of Dover method you used in sophomore chemistry. Show all work and box answer.

Moles



Grams

104. Reaction:

a.

b.

limiting= _____ excess = _____

c.

d. % yield = _____

Ch 4

24.a. $[\text{Na}^+] =$ _____ $[\text{PO}_4^{3-}] =$ _____ b. $[\text{Ba}^{2+}] =$ _____ $[\text{NO}_3^-] =$ _____

c. $[\text{K}^+] =$ _____ $[\text{Cl}^-] =$ _____ d. ammonium = _____ sulfate = _____

36. _____

48. Balanced equation: _____ Show work below.

50. Balanced equation: _____
Calculations:

54) The silver nitrate solution will react with _____ (sodium nitrate or sodium chloride, circle)
to form a precipitate of _____.

b) Net ionic equation for formation of solid ppt: $\text{Ag}^+(\text{aq}) + \text{Cl}^-(\text{aq}) \rightarrow \text{AgCl}(\text{s})$

c) (i) moles of ppt formed:

(ii) moles of NaCl needed

(iii) mass percent of NaCl in mixture

64. Balanced equation: _____
Calculations:

70.

a	b	c	d	e	f
g	h	i	j	k	l

Ch 5

34. Formula used:

36. Since gases are at the same temp and pressure, coefficients can stand for mole and _____ ratios

_____ ml dinitrogen tetroxide

38. Formula used:

P	V	n	T
A			
B			
C			
D			

40. Formula used:

46. Formula used:

a.

b.

c.

95b)

95c)

95d)