

17. a)  $\approx 23\text{g}$   
b)  $\approx 27^\circ\text{C}$   
c) unsaturated

### Miscellaneous

18. a)  $K_{eq} = \frac{[D]}{[A][B]^3}$

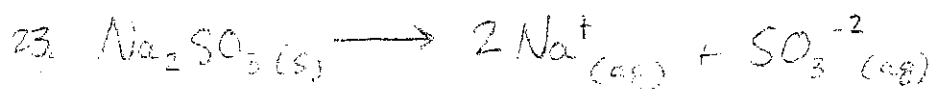
- b)  $[D]$  will decrease  
c) Forward (to the right)  
d)  $[A]$  will decrease

19. • Increase the temp of the  $\text{H}_2\text{O}$   
• Crush the tablet to increase the surface area  
• (Add a catalyst)  
• (Stir the mixture)

20. a) physical                      d) chemical  
b) chemical                      e) chemical  
c) physical                      f) physical

21. a)  $\text{CO}_2(\text{s}) \rightarrow \text{CO}_2(\text{g})$   
c)  $\text{C}_{12}\text{H}_{22}\text{O}_{11}(\text{s}) \rightarrow \text{C}_{12}\text{H}_{22}\text{O}_{11}(\text{aq})$   
f)  $\text{H}_2\text{O}(\text{l}) \rightarrow \text{H}_2\text{O}(\text{s})$

22. freezing water is exothermic  
burning methane is exothermic

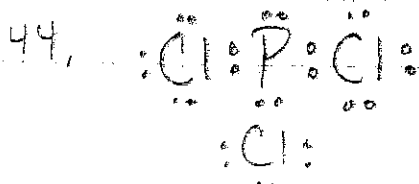


# CP Final Review Multiple Choice Answers

1	3	23	4
2	1	24	2
3	3	25	1
4	1	26	3
5	4	27	3
6	3	28	2
7	1	29	3
8	3	30	3
9	2	31	3
10	1	32	2
11	3	33	1
12	1	34	2
13	4	35	3
14	1	36	3
15	4	37	2
16	3	38	2
17	3	39	2
18	4	40	2
19	1	41	1
20	4	42	3
21	4	43	$PV = nRT$
22	1		

$$(4.00 \text{ atm})(2.00 \text{ L}) = n \left( \frac{0.0821 \text{ L atm}}{\text{K mol}} \right) (303 \text{ K})$$

$$n = 0.322 \text{ mol}$$



Polar Molecule  
because it  
is asymmetric