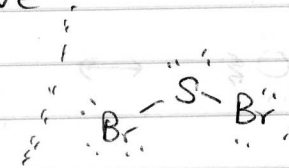
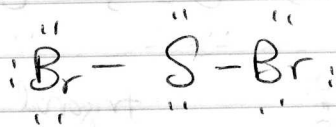
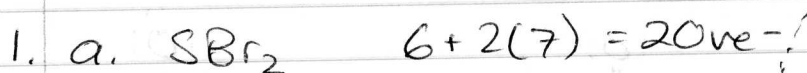
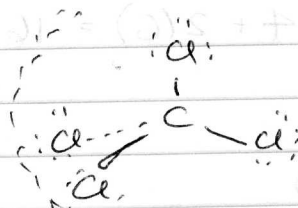
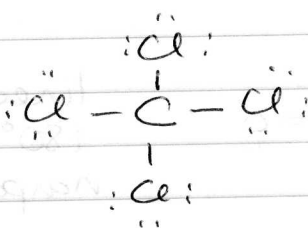


## Chapter 10 Answers to Additional Problems

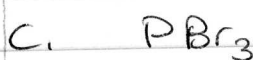
## problem 3

bent  
 $< 109.5^\circ$   
polar

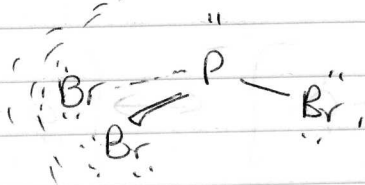
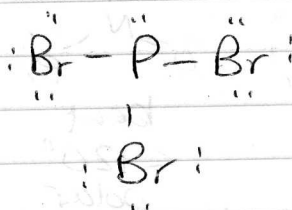
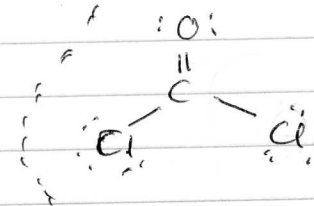
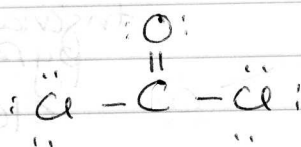
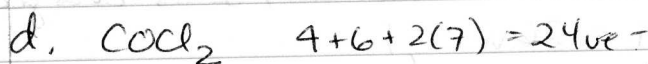
$4 + 4(7) = 32 \text{ ve}^-$

tetrahedral  
 $109.5^\circ$ 

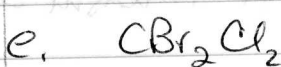
nonpolar



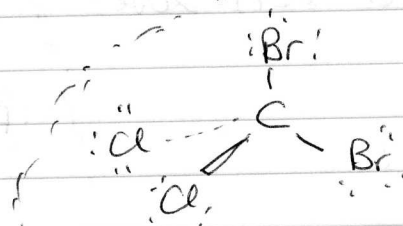
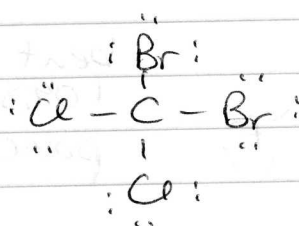
$5 + 3(7) = 26 \text{ ve}^-$

trigonal  
pyramid  
 $< 109.5^\circ$   
polartrigonal planar  
 $120^\circ$ 

polar



$4 + 2(7) + 2(7) = 32 \text{ ve}^-$

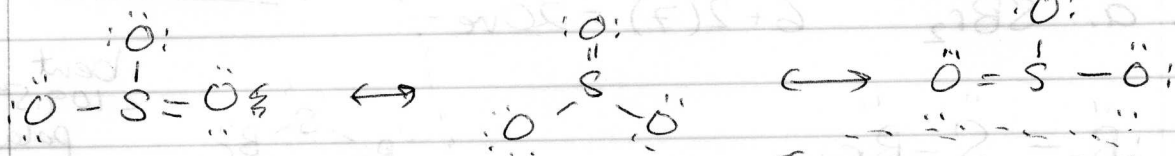
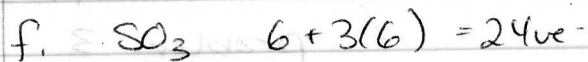


tetrahedral

 $109.5^\circ$ 

polar

p. 2  
1

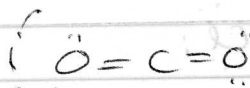
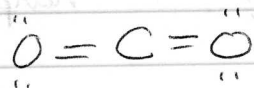
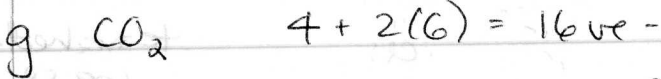


(this one has resonance)

trigonal planar  
 $120^\circ$

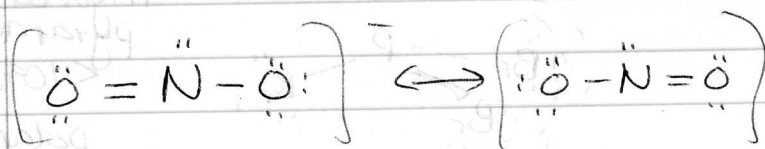
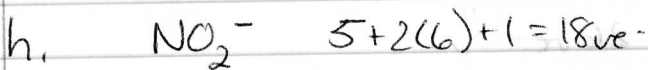
non polar

#3

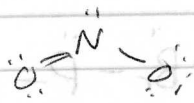


linear  
 $180^\circ$

non polar

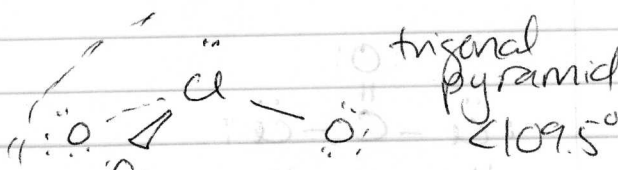
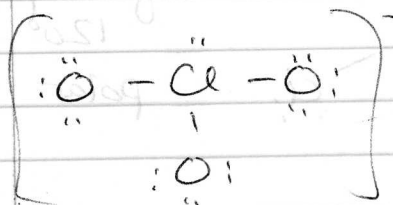
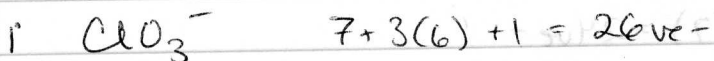


resonance



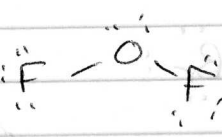
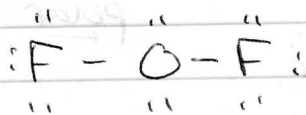
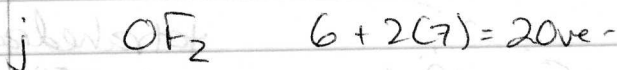
bent  
 $< 120^\circ$

polar  
(would be polar, but it's an ion, so it's charged)



trigonal pyramid  
 $< 109.5^\circ$

would be polar if it wasn't charged



bent  
 $109.5^\circ$   
polar

