

# Organic Chemistry Prep Workshop – Day 3

## You Try Solutions

### You Try 3-1

Fill in all lone pairs on each of the molecules shown below.


Structure has no lone pairs

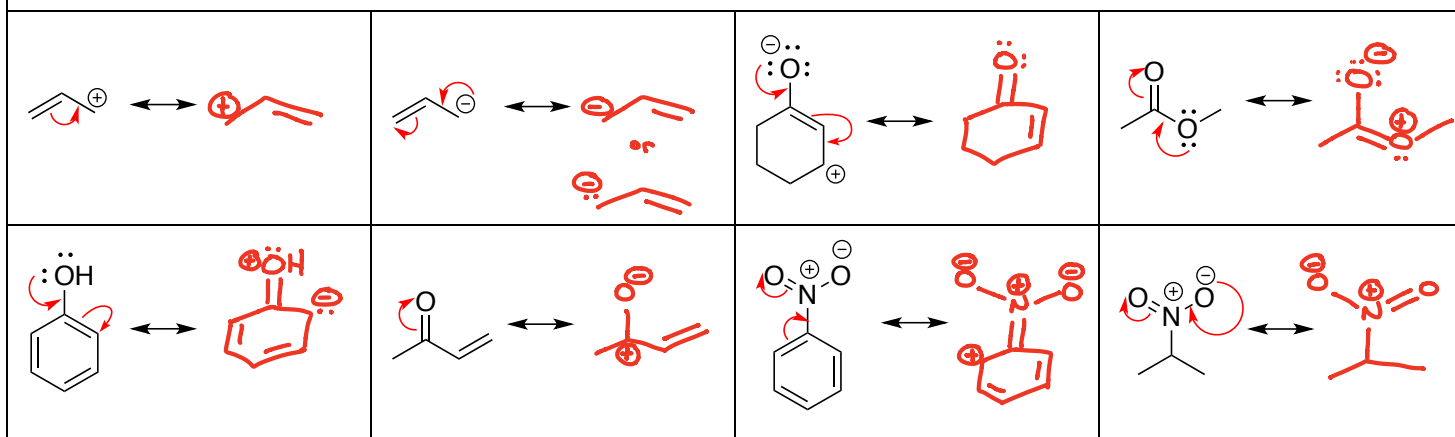
### You Try 3-2

For each structure below, determine whether or not the electron movement shown violates any rules of resonance.

yes  Will give N more than an octet	No. This is valid 	Yes  Will give O more than an octet	yes  Will give the C more than an octet
No. This is valid 	No. This is valid 	No. This is valid 	yes.  This will break a single bond + change connectivity

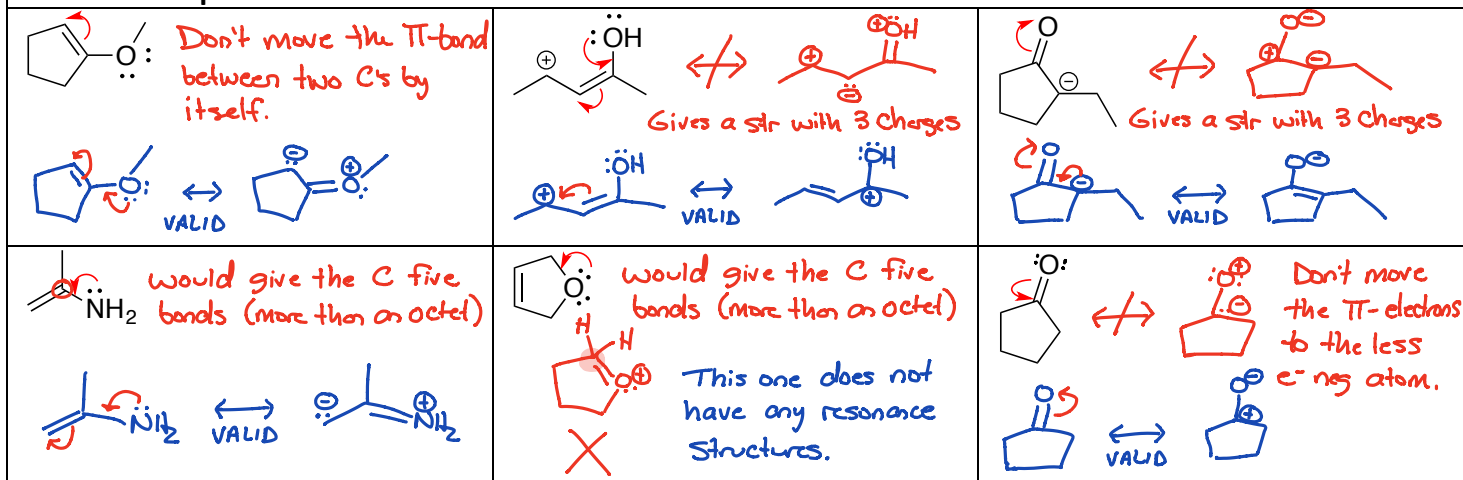
### You Try 3-3

For each structure below, draw the other resonance structure with appropriate formal charges.



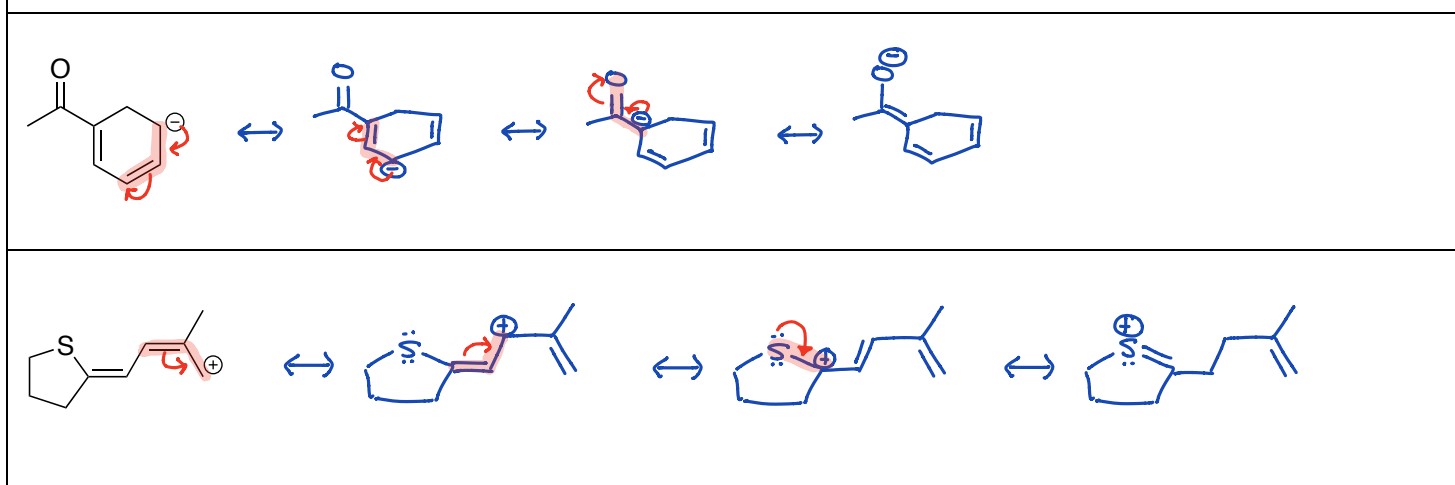
### You Try 3-4

Explain why each electron movement shown does not give a valid resonance structure. Then, provide an alternative if possible.



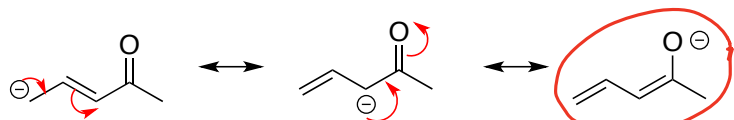
### You Try 3-5

Draw all of the valid resonance structures for each molecule below.

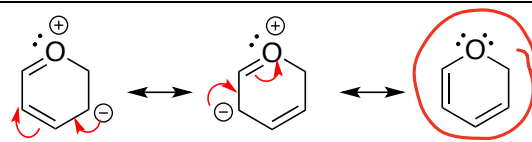


### You Try 3-6

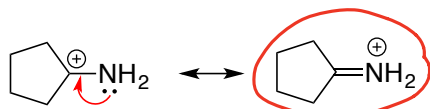
For each set of resonance structures, circle the structure that is the major contributor to the resonance hybrid.



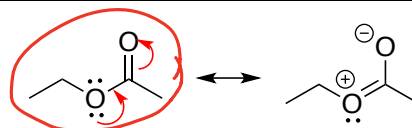
$\ominus$  on most e<sup>-</sup> neg atom



Minimize Charges



all atoms have octet



Minimize charges

$\ominus$  on most e<sup>-</sup> neg atom

