ConcepTests on Isomers & Resonance:

ConcepTest to test if the students understand what a resonance structure is (and the difference between isomers and resonance structures):

The following question is presented in two forms. Choose the one the corresponds to how you present lone pairs to your students. The first question using a bar to represent a lone pair whereas the second question using a pair of dots.

Which pair represents a pair of resonance structures?



Correct Answer is #4. Comment to Instructor: #1 is incorrect since the two structures have different numbers of electrons. Both #2 and #3 show pairs of isomers, rather than resonance structures.

The same question is shown below using two dots to represent the lone pair.

Which pair represents a pair of resonance structures?



Correct Answer is #4.

Comment to Instructor: #1 is incorrect since the two structures have different numbers of electrons. Both #2 and #3 show pairs of isomers, rather than resonance structures.