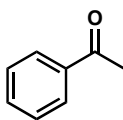
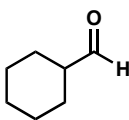


## Quiz 2

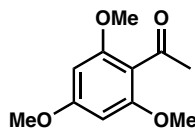
1. The following compounds are treated with EtMgBr. Rank them from most reactive to least reactive. Most reactive = 1, Least Reactive = 4.



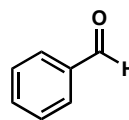
3



1

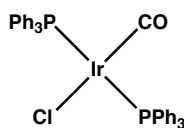


4



2

2. Give the oxidation state,  $d^n$  - notation, and electron count for the metal in the following complex.



oxidation state

Ir (I)

$d^n$

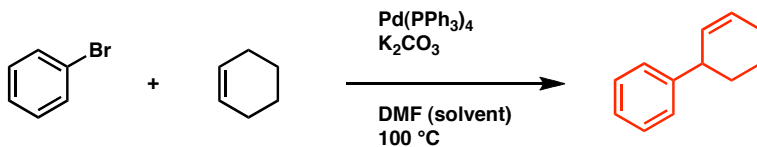
$d^8$

electron count

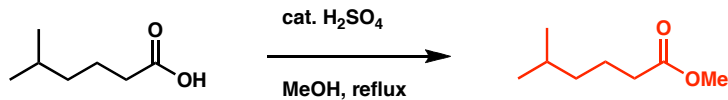
$16e^-$

Predict the product of each reaction below.

3.



4.



Bonus: What is the driving force for the formation of product in problem 4?

A. Methanol is used as solvent and is in large excess, pushing the equilibrium to the right.

or

B.  $H_2O$ , a byproduct of the reaction can be driven off, pushing the equilibrium to the right.