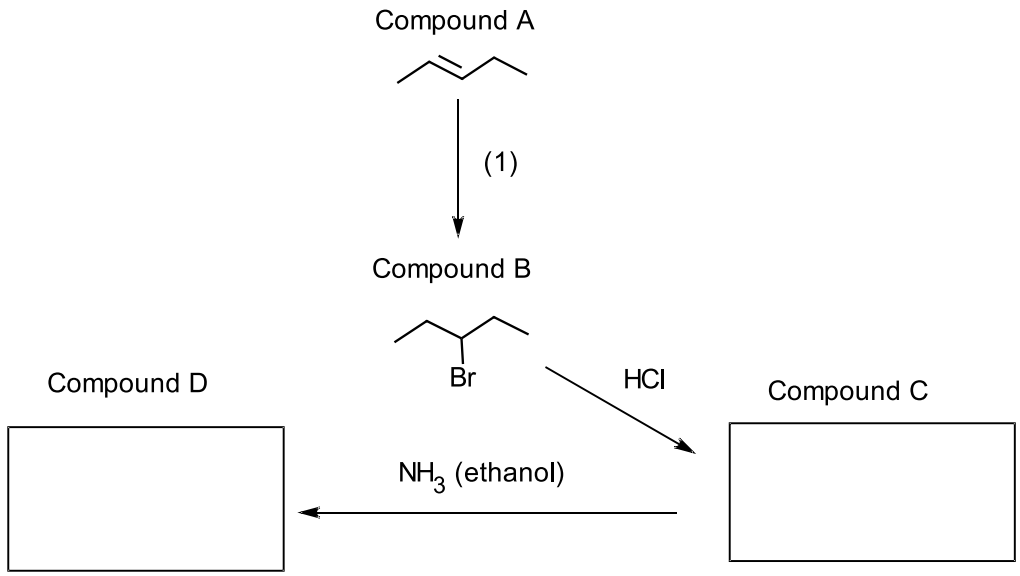
ACADEMY PLUS
English Mathematics Science
Tutoring Professionals

"Don't wait for the inspiration – be the inspiration"

VCE Chemistry : Organic Chemistry - **Reaction Pathways**

1. For the following chemical pathway fill in the empty boxes and the conditions/reactants necessary for this pathway to occur.



Compound A = _____

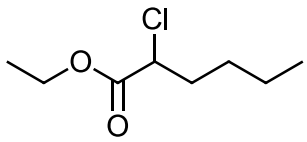
Compound B = _____

Compound C = _____

Compound D = _____

ii. Explain what type of reaction occurs from compound B to compound C and how it differs to the reaction between compound A to compound B.

2. For the following chemical pathway fill in the empty boxes and the conditions/reactants necessary for this pathway to occur. Draw the structural formulas for compound B and C.



Compound A

H_2O

Compound B

Compound C

i. Provide the systematic names for compound B and C.

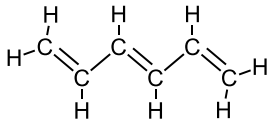
Compound B = _____

Compound C = _____

ii. Provide an organic pathway that you could follow to create compound B and C.

3. For the following chemical pathway fill in the empty boxes and the conditions/reactants necessary for this pathway to occur.

Compound A



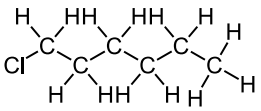
(i)

Compound B

(ii)

Fractional Distillation

Compound C



i. Provide the systematic name for each of the following compunds:

Compound A = _____

Compound B = _____

Compound C = _____

ii. From the above flow chart fill in the following table.

Condition	Condition	Reactant
(i)		
(ii)		

iii. Provide an organic pathway for a chemist that wishes to make the molecule propyl ethanoate.

iv. Provide the equation for the production of propyl ethanoate:

v. Explain why it is necessary to do fractional distillation in this organic pathway.