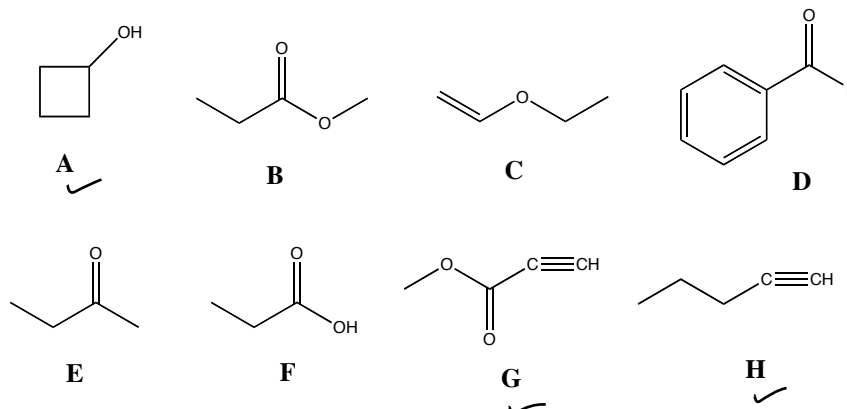


Below are shown 8 structures. Your job is to match the IR spectra (1-8) of the spectra pages (printed on ivory paper) with the correct structure. You must interpret/analyze the IR spectra by writing the appropriate functional group pieces/absorptions in the table below.



Fill in the table below for each of the compounds A-H. In the table you are to fill in the following: Write the number of the IR spectra you matched with each structure, the major IR absorptions (estimate the number from the spectra), for example "O-H 3300", then fill in the name of the functional group(s) present (you can omit alkane), and lastly fill in the number of unique carbons.

Compound letter	IR spectra #	MAJOR IR absorptions (cm ⁻¹) (and what bond/atoms they are due to)	Functional group(s) (name)
A	3	C _{sp³} -H = ~2900 cm ⁻¹ OH = 3350 cm ⁻¹	alcohol
B	8	C-O = 1200 cm ⁻¹ C=O = 1700 cm ⁻¹	ester
C	4	C=C 1620 cm ⁻¹ C-O 1200 cm ⁻¹	alkene ether
D	5	C=O 1700 cm ⁻¹ C _{sp²} -H 3100 cm ⁻¹	aldehyde arene
E	2	C=O = 1720 cm ⁻¹	ketone
F	7	OH = ~3050 cm ⁻¹ broad C=O = 1700	Carboxylic acid
G	1	C=O = 1750 cm ⁻¹ C≡C = 2100 cm ⁻¹	ester alkyne
H	6	C _{sp} -H = 3300 cm ⁻¹ C≡C = 2100 cm ⁻¹	alkyne

