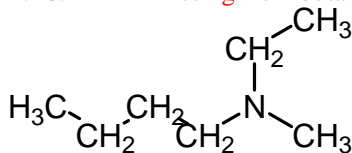


Grade 10 of 10 points

Points

- (3) 1. Give the IUPAC and common names of the following amines, and classify as **primary**, **secondary**, or **tertiary** amines.

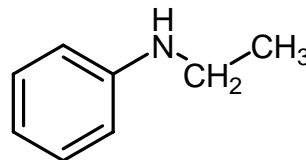
0.5 each blank. -0.2 if "1" missing from butanamine or butyl.



IUPAC: N-ethyl-N-methyl-1-butanamine

Common: 1-butylethylmethylamine

Class: tertiary

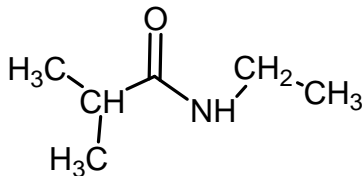


IUPAC: N-ethylaniline

Common: N-ethylaniline (or ethylphenylamine)

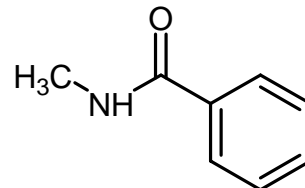
Class: secondary

- (2) 2. Give the IUPAC and common names of the following amides. 0.5 points each



IUPAC: N-ethyl-2-methylpropanamide

Common: N-ethylisobutyramide

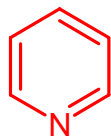


IUPAC: N-methylbenzamide

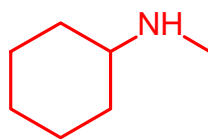
Common: N-methylbenzamide

- (3) 3. Draw the structures of the following compounds: 1 pt each

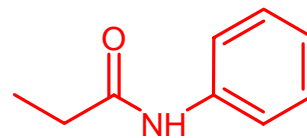
Pyridine



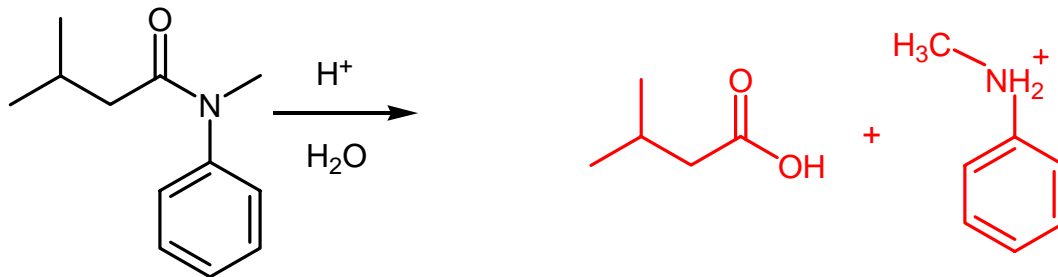
N-methylcyclohexanamine



N-phenylpropionamide



- (2) 4. Draw the structures of the products formed by **acid hydrolysis** of the following amide. Be sure to show the proper protonated form of each product, and its charge, if any.



1 pt each (-0.3 if wrong charge, -0.3 if wrong number of protons)