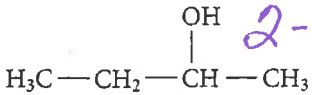
Practice Problems

6-phenyl-2-propyl-1-heptanol

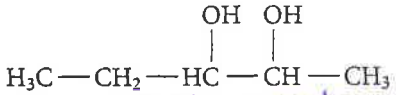
For the next five questions, name each alcohol.

75.



2-butanol

76.

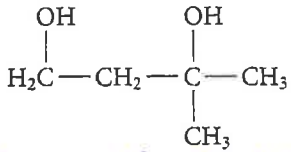


2,3-pentanediol

77.

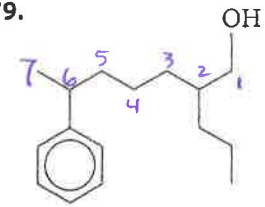
2-propanol

78.



3-methyl-1,3-butanediol

79.



For the next five questions, draw each alcohol.

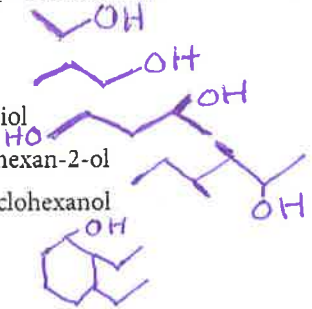
80. ethanol

81. propan-1-ol

82. butane -1,3-diol

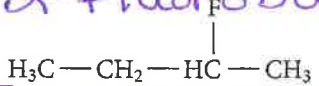
83. 3,4-dimethylhexan-2-ol

84. 2,3-diethylcyclohexanol



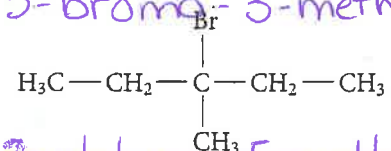
For the next five questions, name each haloalkane.

85.



2-fluorobutane

86.



3-bromo-3-methylpentane

For the next five questions, draw each haloalkane.

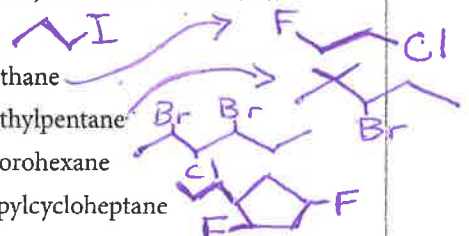
90. 1-iodopropane

91. 2-chloro-1-fluoroethane

92. 3-bromo-2,2-dimethylpentane

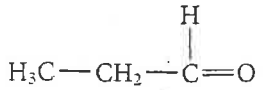
93. 2,4-dibromo-3-chlorohexane

94. 1,4-difluoro-3-propylcycloheptane

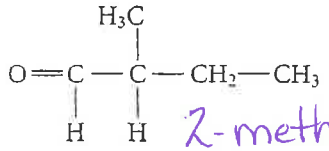


95. Identify any errors in the following names by drawing a line structure. Give the correct name for

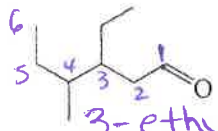
For the next four questions, name each aldehyde.

96. 

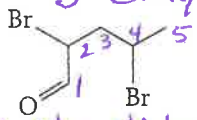
propanal

97. 

2-methylbutanal

98. 

3-ethyl-4-methylhexanal

99. 

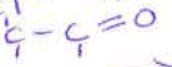
2,4-dibromopentanal

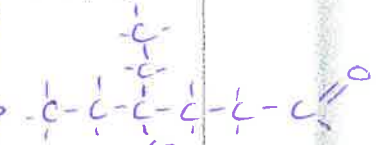
For the next five questions, draw each aldehyde.

100. 3-methylbutanal 

101. methanal (commonly known as formaldehyde) 

102. 2-methylpropanal 

103. 2-chloroethanal 

104. 4,4-diethylhexanal 

105. Explain why the following aldehydes are named incorrectly or cannot exist.

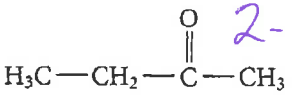
a. 2-ethanal (can't be on 2nd carbon)

b. 5-ethylhexanal (5-methylheptanal)

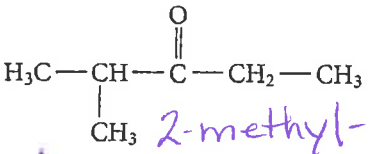
c. cyclobutanal (cyclobutanone)

d. 1-fluoropentanal (~~no room for fluorine~~) ↖ okay

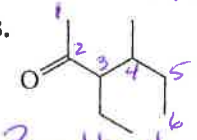
For the next three questions, name each ketone.

106. 

2-butanone

107. 

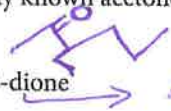
2-methyl-3-pentanone

108. 

3-ethyl-4-methyl-2-hexanone

For the next three questions, draw each ketone.

109. propanone (commonly known acetone) 

110. 3-ethylhexan-2-one 

111. 4,4-diethylhexane-2,3-dione 

For the next four questions explain why each ketone is named incorrectly or cannot exist. If it can exist, give the proper name.

112. propan-1-one (propanal)

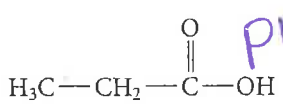
113. pentan-4-one (2-petanone)

114. 2-propylhexan-3,4-dione (5-methyl-3,4-octadione)

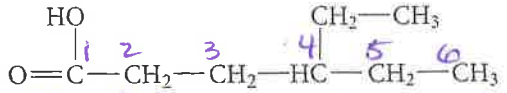
115. benzen-1-one (does not exist)

Practice Problems

For the next two questions, name each carboxylic acid.

116. 

propanoic acid

117. 

4-ethylhexanoic acid

For the next four questions, draw each carboxylic acid.

118. butanoic acid (commonly known butyric acid)

119. 4-ethyloctanoic acid

120. 3-methyl-4-phenylhexanoic acid

121. pentandioic acid (commonly name: glutaric acid)

For the next four questions, explain why each carboxylic acid is named incorrectly or cannot exist. If it can exist, give the proper name.

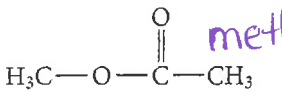
122. hexan-6-oic acid (hexanoic acid)

123. butan-2-oic acid (does not exist)

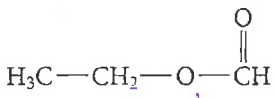
124. 3-butylpentanoic acid (3-ethylheptanoic acid)

125. cyclohexanoic acid (does not exist)

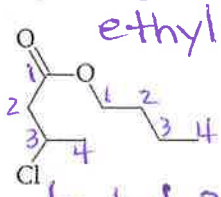
For the next three questions, name each ester.

126. 

methylethanoate

127. 

ethylmethanoate

128. 

butyl-3-chlorobutanoate

For the next three questions, draw the condensed structural formula each ester.

129. butylethanoate

130. ethylbutanoate

131. ethyl 2-cyclobutylpropanoate

For the next four questions, draw the line structure of the ester formed from each reaction.

132. propanoic acid and ethanol

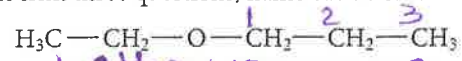
133. butanoic acid and propanol

134. 3-fluoropentanoic acid and methanol

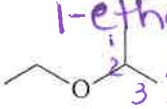
135. butanol and 4-phenylhexanoic acid

Later

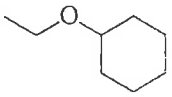
For the next three questions, name each ether.

136. 

1-ethoxypropane

137. 

2-ethoxypropane

138. 

ethoxycyclohexane

For the next four questions, draw the condensed structural formula for each ether.

139. methoxyethane C-O-C-C

140. 2-propoxybutane

141. 3-ethoxy-4-methylhexane

142. 2-phenoxyheptane

For the next four questions, explain why each ether is named incorrectly or cannot exist. If it can exist, give the correct name.

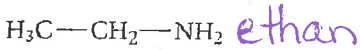
143. ethoxymethane methoxyethane

144. 3-propoxybutane 2-propoxybutane

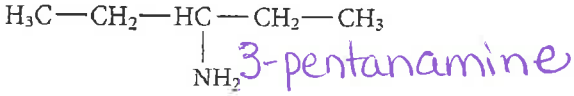
145. 4-methoxy-4-methylbutane

146. 2-ethoxybenzene 2-methoxypentane ethoxybenzene

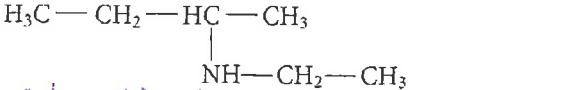
For the next four questions, name each amine.

147. 

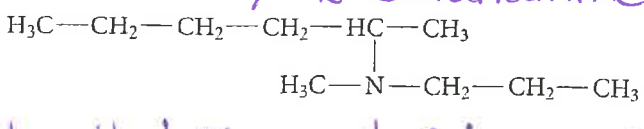
ethanamine

148. 

3-pentanamine

149. 

150. N-ethyl-2-butanamine



N-methyl-N-propyl-2-hexanamine

For the next four questions, draw the condensed structural formula for each amine.

151. methanamine

152. N-propylbutan-1-amine

153. hexan-1,4-diamine

154. N-ethyl-N-methylheptan-3-amine

For the next four questions, draw line structures of each amine.

155. propan-1-amine

156. N-ethyl-pentan-2-amine

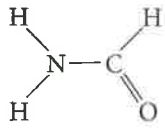
157. N,N-dimethylbutan-2-amine

158. N-ethyl-N-propylhexan-3-amine

Practice Problems

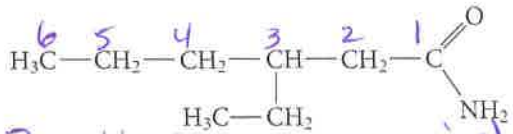
For the next four questions, name each amide.

159.



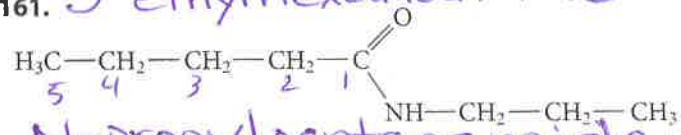
methanamide

160.



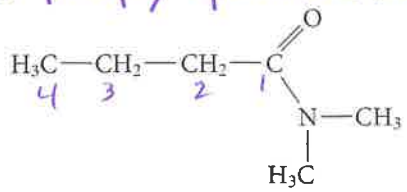
3-ethylhexanamide

161.



N-propylpentanamide

162.



N,N-dimethylbutanamide

For the next four questions, draw the condensed structural formula for each amide.

163. ethanamide

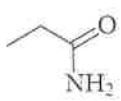
164. 2-methylpropanamide

165. N,N-diethylhexanamide

166. N-ethyl-N-propyl-2-methylbutanamide

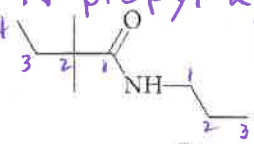
For the next three questions, name each amide.

167.



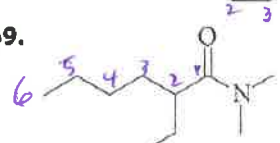
propanamide

168.



N-propyl-2,2-dimethylbutanamide

169.



N,N-dimethyl-2-propylhexanamide