CONCEPT: ALCOHOL REACTIONS: SUBSTITUTION REACTIONS

- Under this type of reaction _____ or ____ reacts with an alcohol.
 - □ _____ changes OH into Cl. □ ____ changes OH into Br.

Substitution Reactions

Alcohol

OH

$$H_3C-CH-CH_3$$
 $X=$

or

 X
 $H_3C-CH-CH_3$

EXAMPLE: Determine the alkyl halide formed in the following reaction.

PRACTICE: Name the product formed when 2-pentanol is treated with hydrochloric acid.

- a) 2-pentanoic acid
- b) 3-chloropentane
- c) 3-pentanol
- d) 2-chloropentane

PRACTICE: Name the starting alcohol used in the following reaction.

- a) 1-methylcyclohexanol
- b) 3-methylhexanol
- c) 3-methylcyclohexanol
- d) 2-methylcyclohexanaol