Reaction Name: E<sub>1</sub> Dehydration of 2-methylpropan-2-ol

Conversion: Alcohol to Alkene

General Form:

$$H_3C$$
  $\longrightarrow$   $OH$   $\longrightarrow$   $H_3C$   $\longrightarrow$   $CH_2$   $CH_3$ 

Mechanism:

Notes: This reaction is often referred to as acid catalyzed and for our elementary purposes this is correct because the reaction needs an acidic environment. The  $E_1$  mechanism is only for secondary and tertiary alcohols. Rearrangement will occur in some cases so look out. Do not forget about Zaitsev and regioselectivity.

Examples: Francis (textbook) p 202.

References: Chip Le and the Textbook.