Problems - February 10, 2009

1. Propose a mechanism for the following transformation

2. Propose a mechanism for the following transformation and identify intermediate X.

$$\begin{array}{c|c}
O & & & \\
N & & & \\
\hline
N & & \\
N & & \\
\hline
N & & \\
N & & \\
\hline
N & & \\
N & & \\
\hline
N & & \\
N & & \\$$