1. Declare a structure called \textit{Date} to store information for dates. Include \texttt{day(int)}, \texttt{month(int)} and \texttt{year(int)} in the structure.

2. Implement the following functions that use the structure \texttt{Date}.

   \begin{verbatim}
   int before(struct Date d1, struct Date d2);
   int within30days(struct Date d1, struct Date d2);
   \end{verbatim}

   - The function \texttt{before} returns 1 if \texttt{d1} is before \texttt{d2} and 0 otherwise.
   - The function \texttt{within30days} returns 1 if \texttt{d1} and \texttt{d2} are within 30 days of each other and 0 otherwise. The parameters for this function need not be in order and \texttt{d1} could be before \texttt{d2} or after \texttt{d2}. You can assume that each month is 30 days for this function.