Scheme

1. Special Forms
   
   (a) \textit{cond} - (\textit{cond} \textit{clause} \textit{clause} \ldots)
   
   Each clause is either (\textit{test} \textit{consequent}) or (\textit{else} \textit{alternative}). Tests each clause in order and if the test evaluates to not false, evaluates the consequent.

Problems

1. Write a procedure \texttt{fact} that computes the factorial of a number \texttt{n}.
   
   Plan:

2. Write a procedure \texttt{remainder} that computes the remainder of \texttt{num} divided by \texttt{divisor}.
   
   Plan:

3. Write a procedure that computes \( e \).
   
   Plan:
4. Write an iterative procedure that computes \( e \).
   Plan:

5. Write a procedure \texttt{fib} that computes the \( n^{th} \) fibonacci number.
   Plan:

6. Write a procedure that computes the golden ratio, \( \phi \).
   Plan:

7. Write a procedure that computes \( \pi \).
   Plan: