CS4182 Homework Exercises 7

1. Use the while rule to prove that the following program segment is correct:

   $\{n \geq 1 \wedge i = 1 \wedge sum = 0 \wedge f = 1\}$

   ```
   while (i<=n) {
       sum=sum+f;
       i=i+1;
       f=f*i;
   }
   ```

   $\{sum = \sum_{j=1}^{n} j! \}$