What do the following functions do?

```
int f(int n)
{
   if (n <= 1) return 1;
   else        return n*f(n-1);
}
```

```
Node<T> * f( Node<T> * ptr, T value)
{
  if       (ptr        == nullptr) return nullptr;
  else if (ptr->data == value ) return ptr;

  return f(ptr->next, value);
}
```

```
T f( const std::vector<T> & v,  std::size_t i )
{
    if      (0 == v.size()  )  return T();
    else if (i >= v.size()  )  return T();
    else if (i >= v.size()-1)  return v[i];

    return v[i] + f(v, i+1);
}
```

```
int f( int a, int b )
{
  if (0 == b)  return 0;
  return a + f(a, b-1);
}
```

```
template<typename T>
void SinglyLinkedList<T>::f()
{
  f( head );

  auto tmp = head;
  head     = tail;
  tail     = tmp;
}


template<typename T>
void SinglyLinkedList<T>::f(Node<T>* curNode){
  if( curNode == nullptr || curNode->next == nullptr )  return;

  f(curNode->next);

  curNode->next->next = curNode;
  curNode->next       = nullptr;
}
```