Reentrant example

// ReEntrant.c
// This example has a reentrant subprogram that is used by both
// the main program and the interrupt service routine. The
// subprogram is marked "reentrant" to make this work correctly.
// To make code reentrant the parameters must be saved on a stack –
// not in registers or memory as is usually done. To do this
// the compiler simulates a software stack. You can see this
// in the disassembly window. The stack is at ?C_IBP
// 
// void ComplementBitP3(unsigned char bNum) reentrant
// {
//   unsigned char x;
//   x = 1;
//   while(bNum > 0)
//   {
//     x = x << 1;
//     bNum = bNum >> 1;
//   }
//   P3 = P3 ^ x;
// }