

1. Study Sixth edition Chapter 7, Section 7.1.
2. Translate the following C program to Pep/10 assembly language. It multiplies two integers using an iterative shift-and-add algorithm.

```
#include <stdio.h>

void times(int *prod, int mpr, int mcand) {
    *prod = 0;
    while (mpr != 0) {
        if (mpr % 2 == 1) {
            *prod = *prod + mcand;
        }
        mpr /= 2;
        mcand *= 2;
    }
}

int main () {
    int product;
    int n;
    int m;
    scanf("%d %d", &n, &m);
    times(&product, n, m);
    printf("Product: %d\n", product);
    return 0;
}
```

Your assembly language program must contain (1) a documentation section with your name, date, and assignment number at the top of the program, and (2) trace tags for all the variables.

Name your file `xxprob0619.pep` (all lowercase) where `xx` is your assigned two-digit number. For example, if your two-digit number is 99 you would name it `99prob0619.pep`. Note that the app will automatically append the file extension `.pep`.

Hand in your file as an attachment in Canvas under Assignment 19.