

```

/* Question 1 Solution */
#include <stdio.h>

int main( void )
{
    int account; /* current account number */
    int i; /* counter */
    float limit; /* current credit limit */
    float balance; /* current balance */
    float newLim; /* new credit limit */

    /* loop three times */
    for ( i = 1; i <= 3; i++ ) {

        /* get account number, credit limit and balance */
        printf( "\nEnter account, limit, balance: " );
        scanf( "%d%f%f", &account, &limit, &balance );

        newLim = limit / 2.0; /* calculate new limit */
        printf("New credit limit for account %d: %.2f\n", account, newLim);

        /* if balance is greater than new credit limit */
        if ( balance > newLim ) {
            printf( "Limit exceeded for account %d\n", account );
        } /* end if */

    } /* end for */

    return 0; /* indicate successful termination */
} /* end main */

```

```

/* Question 2 Solution */
#include <stdio.h>

int main( void )
{
    int i; /* outer counter */
    int j; /* inner counter */
    int number; /* current number */

    printf( "Enter 5 numbers between 1 and 30: " );

    /* loop 5 times */
    for ( i = 1; i <= 5; i++ )
    {
        scanf( "%d", &number );

        /* print asterisks corresponding to current input */
        for ( j = 1; j <= number; j++ )
        {
            printf( "*" );
        } /* end for */

        printf( "\n" );
    } /* end for */

    return 0; /* indicate successful termination */
} /* end main */

```

```

/* Question 3 Solution */
#include <stdio.h>

int main( void )
{
    int product; /* current product number */
    int quantity; /* quantity of current product sold */
    double total = 0.0; /* current total retail value */

    /* prompt for input */
    printf( "Enter pairs of item numbers and quantities.\n");
    printf( "Enter -1 for the item number to end input.\n" );
    scanf( "%d", &product );

    /* loop while sentinel value not read from user */
    while ( product != -1 )
    {
        scanf( "%d", &quantity );

        /* determine product number and corresponding retail price */
        switch ( product )
        {

            case 1:
                total += quantity * 2.98; /* update total */
                break;

            case 2:
                total += quantity * 4.50; /* update total */
                break;

            case 3:
                total += quantity * 9.98; /* update total */
                break;

            case 4:
                total += quantity * 4.49; /* update total */
                break;

            case 5:
                total += quantity * 6.87; /* update total */
                break;

            default:
                printf( "Invalid product code: %d\n", product );
                printf( " Quantity: %d\n", quantity );
        } /* end switch */

        scanf( "%d", &product ); /* get next input */
    } /* end while */
}

```

```
    /* display total retail value */  
    printf( "The total retail value was: %.2f\n", total );  
  
    return 0; /* indicate successful termination */  
} /* end main */
```