EGN 3211 Test 2 (MWF) Dr. Fernando Gonzalez Fall 2005

NAME _____

```
main( )
        {
        int     a[6][4], b[6], *p;

        b[5] = 1;
        p = b + 1;
        p[2] = 2;
        *(p++) = 3;
        p = b;
        *p = 4;
        *(b + 4) = 5;

        a[1][3] = 6;
        p = a + 10;
        *(p+3) = 7;
        p = &(a[4][3]);
        *p = 8;
        *(a + 6) = 9;
        *(a + 5 * 4 + 1) = 10;
        *a = 11;
```

a

b

1. (20%) Write a complete program to read a file of records with the following fields: first name then last name then age then M or F for male or female then their profession and finally the ZIP code they live in. See example file below:

Fernando Gonzalez 25 M Engineer 32708
Sara Smith 37 F Realtor 32816
John Brown 56 M Director 32817

Read all of the records and save each record to 1 of 4 output files depending on the record's age and gender as follows:

the file YoungMales.dat save all records with males younger or equal to 30 years.
the file OldMales.dat save all records with males older then 30 years
the file YoungFemales.dat save all records with females younger or equal to 30 years.
the file OldFemales.dat save all records with females older then 30 years.

Finally close all files.

4. (22%) What is the contents of each variable in the following program? There is no output so I can only grade you from the history of each variable.

```
int  x[3] = {10,20,30},
     y[3] = {70,80,90},
     z[3] = {40,50,60};

int bill(int x[3], int *p)
     {
     int       z[3] = {100,200,300};

     x[0]++;
     y[0]++;
     z[0]++;
     p[0]++;
     }

void main()
     {
     int       y[3] = {1000,2000,3000},
               z[3] = {4000,5000,6000};

     x[1]++;
     y[1]++;
     z[1]++;

     bill(z,x);
     }
```

<u>Variables</u>