```cpp
//                              Milos Topic
//                              09/14/99
//                              CIS-112   problem #12
//                              Computer Science II
#include
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class array1
        {
                public:
                        array1() {}
                        void title();
                        void fillit(int arr[],int size);
                        void swap(int &a,int &b);
                        void printit(int arr[],int size);
                        void printit1(int arr[],int size);
                        void middle(int arr[],int size);
                private:
        };
void array1::fillit(int arr[],int size)
        {
                ifstream infile("c:\\bc45\\bin\\pmshop\\cpp\\top.dat", ios::in);
                int i = 0;
                while(i < size)
                        {
                                infile >> arr[i];
                                i=i++;
                        }
        }
void array1::title()
        {
                cout << "\n\n Milos Topic                        09/14/99";
                cout << "\n\n Problem #12";
                cout << "\n\n ***MIDDLE and SWAP***";
                cout << "\n";
        }
void array1::swap(int &a,int &b)
```

```
                {
                        int hold = 0;
                        hold = a;
                        a = b;
                        b = hold;
                }
void array1::printit(int arr[],int size)
                {
                        int z=0;
                        cout << "\n The numbers are: \n\n";
                        while(z < size)
                                {
                                        cout << arr[z] << " ";
                                        z=z++;
                                }
                        getch();
                }
void array1::printit1(int arr[],int size)
                {
                        cout << "\n\n The new order of the swaped numbers is: \n\n";
        int z=0;
                        while(z < size)
                                {
                                        cout << arr[z] << " ";
                                        z=z++;
                                }
                }
void array1::middle(int arr[], int size)
                {
                        int m=0;
                        m = (0 + size-1)/2;
                        cout << "\n\n The middle number is: ";
                        cout << arr[m];
                }
void main()
                {
                        const int size=15;
```

```
        int arr[15];
        int m = (0 + 14)/2;
        array1 a;
        a.fillit(arr,size);
        a.title();
        a.printit(arr,size);
        a.swap(arr[m+1],arr[m-1]);
        a.printit1(arr,size);
        a.middle(arr,size);
    }
```

***** OUTPUT *****

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Problem #12

MIDDLE and SWAP

The numbers are:

90 23 -36 47 53 5 45 65 78 89 11 2 35 47 57

The new order of the swaped numbers is:

90 23 -36 47 53 5 78 65 45 89 11 2 35 47 57

The middle number is: 65