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1.QUESTION

```
#include<iostream>
using namespace std;
class sets
{
private:

    int n,i,a[100];
    float avg,d[100];

public:

    void get_data();
    void average();
    void diviation();
    void display_data();
};
void sets::get_data()
{
cout<<"enter the size of set  : ";
cin>>n;
cout<<endl;
cout<<"enter the elements of set"<<endl;
for(i=0;i<n;i++)
{
cin>>a[i];
}

}
void sets::average()
{
avg=0;
for(i=0;i<n;i++)
{
avg=avg+a[i];
avg=avg/n;
}
}
void sets::diviation()
{
for(i=0;i<n;i++)
{
d[i]=a[i]-avg;
}
}
void sets::display_data()
{
cout<<"average the given set is : "<<avg<<endl<<endl;
for(i=0;i<n;i++)
```

```

{
cout<<"diviation of : "<<a[i]<<"="<<d[i]<<endl<<endl;
}
}
int main()
{
sets s;
s.get_data();
s.average();
s.diviation();
s.display_data();
return 0;
}

```

output

```

/home/matlab/Downloads/katlab
enter the size of set : 5
enter the elements of set
4
6
7
8
9
average the given set is : 11.8
deviation of : 14.2
deviation of : 16.4
deviation of : 17.5
deviation of : 18.6
deviation of : 19.3
Process returned 0 (0x0)   execution time : 7.543 s
Press ENTER to continue.

```