

```
function d=magn(v)
d=0;
n=length(v);
for i=1:n
    d=d+v(i)^2;
end
d=sqrt(d);
end
%test
v=[1 3 4 5]
```

```
v = 1x4
    1     3     4     5
```

```
magn(v)
```

```
ans = 7.1414
```

```
norm(v)
```

```
ans = 7.1414
```

```
function A=mydiagmat(n)
A=zeros(n,n);
for j=1:n
    A(j,j)=210*j-100;
end
end
mydiagmat(4)
```

```
ans = 4x4
    110     0     0     0
     0    320     0     0
     0     0    530     0
     0     0     0    740
```

```
mydiagmat(3)
```

```
ans = 3x3
    110     0     0
     0    320     0
     0     0    530
```

```
mydiagmat(5)
```

```
ans = 5x5
    110     0     0     0     0
     0    320     0     0     0
     0     0    530     0     0
     0     0     0    740     0
     0     0     0     0    950
```