

```
>> % PROBLEM 15 Section 2.6
```

```
>> A=[.4 .3 .1;2 .2 .2;1 .1 .4]
```

```
A =
```

```
    0.4000    0.3000    0.1000  
    0.2000    0.2000    0.2000  
    0.1000    0.1000    0.4000
```

```
>> D=[100;80;200]
```

```
D =
```

```
    100  
     80  
    200
```

```
>> inv(eye(3)-A)*D
```

```
ans =
```

```
398.2143  
312.5000  
451.7857
```

```
>> % Manufacturing must produce $398,214,300
```

```
>> % Transportation must produce $312,500,000
```

```
>> % Agriculture must produce $451,785,700
```

- Form the input-output matrix with the input requirements of each sector in the columns

- Form the external (consumer) demand matrix

- Solve the matrix equation

$$X = AX + D$$

- $$X = (I - A)^{-1} \cdot D$$

use matlab to calculate this solution