

```
>> P0=[0,0]
```

```
P0 =
```

```
0 0
```

```
>> v=[1; 2];
```

```
>> arrow(P0,v)
```

```
>> hold on
```

```
>> w=[-2; 2];
```

```
>> arrow(P0,w,'g')
```

```
>> arrow(P0,v+w,'r')
```

```
>> axis equal
```

```
>> hold off
```

```
>> A=[2 0;0 2]
```

```
A =
```

```
2 0
```

```
0 2
```

```
>> arrow(P0,v)
```

```
>> hold on
```

```
>> arrow(P0,A*v,'r')
```

```
>> hold off
```

```
>>
```

```
>> P1=[0;0;0]
```

```
P1 =
```

```
0
```

```
0
```

```
0
```

```
>> a=[1;2;3]
```

```
a =
```

```
1
```

```
2
```

```
3
```

```
>> b=[3;-1;4]
```

```
b =
```

```
3
-1
4
```

```
>> c=[-1;6,-5]
```

```
Error using vertcat
```

```
Dimensions of matrices being concatenated are not consistent.
```

```
>> c=[-1;6;-5]
```

```
c =
```

```
-1
6
-5
```

```
>> arrow3(P1,a)
```

```
>> hold on
```

```
>> arrow3(P1,b,'r')
```

```
>> arrow3(P1,c,'g')
```

```
>> arrow3(P1,a+c,'y')
```

```
>> arrow3(P1,a-b-c,'k')
```

```
>> hold off
```

```
>>
```

```
>> P=[2 3 1;3 3 1;2 4 1]
```

```
P =
```

```
2 3 1
3 3 1
2 4 1
```

```
>> A=[4 5 2;-2 1 3;0 2 -1]
```

```
A =
```

```
4 5 2
-2 1 3
0 2 -1
```

```
>> det(A)
```

```
ans =
```

```
-46
```

```
>> B=P*A*inv(P)
```

```
B =
```

```
55.0000 -22.0000 -21.0000  
58.0000 -22.0000 -22.0000  
74.0000 -30.0000 -29.0000
```

```
>> det(B)
```

```
ans =
```

```
-46.0000
```

```
>>
```

```
>> A=[1 -2;2 1]
```

```
A =
```

```
1 -2  
2 1
```

```
>> sqrt(1^2+2^2)
```

```
ans =
```

```
2.2361
```

```
>> A/ans
```

```
ans =
```

```
0.4472 -0.8944  
0.8944 0.4472
```

```
>> acos(.4472)
```

```
ans =
```

```
1.1072
```

```
>>
```