

---

```
A = [1 2; 2 4];  
[isDiag, P, D, v] = assignment8(A)
```

```
P'*P           % ~ I  
A - P*D*P'     % ~ 0
```

```
isDiag =
```

```
logical
```

```
1
```

```
P =
```

```
-0.8944    0.4472  
0.4472    0.8944
```

```
D =
```

```
0    0  
0    5
```

```
v =
```

```
0  
5
```

```
ans =
```

```
1.0000    0.0000  
0.0000    1.0000
```

```
ans =
```

```
1.0e-15 *  
  
-0.2220    -0.4441  
-0.4441    -0.8882
```

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