In [2]:

```
#Answer 2
import numpy as np

hq_ht = np.transpose([0.5 ,0.5 ,-0.5 ,-0.25, -0.25])
#type(hq_ht) = numpy.ndarray
A=np.array([[1,0.135,0.195,0.137,0.157],[0.135,1,0.2,0.309,0.143],[0.195,0.2,1,0.157,0.122],[0.137,0.309,0.157,1,0.195],[0.157,0.143,0.122,0.195,1]])
D=np.transpose(hq_ht)@A@(hq_ht)
print("Quadratic Distance =",D)
```

```
Quadratic Distance = 0.6526249999999999
```