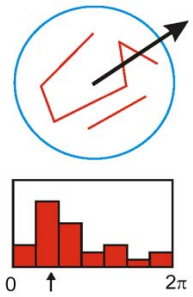
FL#6

1. Design a function to compute Euclidean and Mahalanobis distance for all data.
   A. Input : Arbitrary data matrix (as given sample)
   B. Output : Average, Euclidean and Mahalanobis distance from average for all data

Height	Weight	Age	Score
170	50.5	29	80
172	71.1	33	93
167	61.3	37	72
180	88.4	44	88
188	69.8	46	85
162	58.2	35	69

2. For the detected corners by Harris method, find the major orientation of corners.
   A. Input : Image
   B. Output : Major orientation for corners



$$L(x, y, k\sigma) = G(x, y, k\sigma) * I(x, y)$$

$$m(x, y) = \sqrt{(L(x+1, y) - L(x-1, y))^2 + (L(x, y+1) - L(x, y-1))^2}$$

$$\theta(x, y) = \text{atan2}(L(x, y+1) - L(x, y-1), L(x+1, y) - L(x-1, y))$$

→ 36 bins is generally used (10 degree for each)