

K-Nearest Neighbor(KNN) Example

Brightness	Saturation	Class
40	20	Red
50	50	Blue
60	90	Blue
10	25	Red
70	70	Blue
60	10	Red
25	80	Blue

K = 3

Brightness = 20 ;

Saturation = 35

Class = ??

Euclidean Distance between A₁ and B₂ = $\sqrt{(X_2-X_1)^2+(Y_2-Y_1)^2}$

K-Nearest Neighbor(KNN) Example

Height (CM)	Weight (KG)	Class
167	51	Underweight
182	62	Normal
176	69	Normal
173	64	Normal
172	65	Normal
174	56	Underweight
169	58	Normal
173	57	Normal
170	55	Normal
170	57	?

• K=3

Euclidean Distance between A_1 and $B_2 = \sqrt{(X_2 - X_1)^2 + (Y_2 - Y_1)^2}$

K-Nearest Neighbor(KNN) Example

Customer	Age	Loan	Default
John	25	40000	N
Smith	35	60000	N
Alex	45	80000	N
Jade	20	20000	N
Kate	35	120000	N
Mark	52	18000	N
Anil	23	95000	Y
Pat	40	62000	Y
George	60	100000	Y
Jim	48	220000	Y
Jack	33	150000	Y
Andrew	48	142000	?

K = 3