③: Naive Bayes:-

S₀	Outlook	Temp	Humidity	Wind	Play Tennis
1	Sunny	Hot	High	Weak	No
2	Sunny	Hot	High	Strong	No
3	Overcast	Hot	High	Weak	Yes
4	Rain	Mild	High	Weak	Yes
5	Rain	Cool	Normal	Weak	Yes
6	Rain	Cool	Normal	Strong	No
7	Overcast	Cool	Normal	Strong	Yes
8	Sunny	Mild	High	Weak	No
9	Suny	Cool	Normal	Weak	Yes
⑩	[Rain]	[Mild]	[Normal]	[Weak]	P (Yes)

$$P(No) = T(P.Tennis) = 9$$

$$P(No) = \frac{4}{9} \implies P(No) = 0.44$$

$$P(Yes) = \frac{5}{9} \implies P(Yes) = 0.55$$

Outlook	Yes	No	
Sunny	1/9	3/9	④
Rain	2/9	1/9	③
Overcast	2/9	0	②
			9

Temp	Yes	No,	
Hot	1/9	2/9	③
Cool	3/9	1/9	④
Mild	1/9	1/9	②
			9

Humidity	Yes	No	
High	2/9	3/9	⑤
Normal	3/9	1/9	④
			9

Wind	Yes	No	
Weak	4/9	~~2/9~~ 2/9	⑥
Strong	1/9	2/9	③
			9

Formula :-

$$V_{NB}(Yes) = \cancel{} P(Yes) \cdot P(R/Yes) \cdot P(M/Yes) \cdot P(N/Yes) \cdot P(w/Yes)$$

$$= (0.55) \cdot (2/9) \cdot (1/9) \cdot (3/9) \cdot (4/9)$$

$$\boxed{V_{NB}(\cancel{Yes}) = 2.0118} \longrightarrow \text{Yes}$$

$$V_{NB}(No) = P(No) \cdot P(R/No) \cdot P(M/No) \cdots$$
$$P(N/No) \cdot P(W/No)$$
$$'' = (0.44) \cdot \left(\frac{1}{9}\right) \cdot \left(\frac{1}{9}\right) \cdot \left(\frac{2}{9}\right) \cdot \left(\frac{1}{9}\right)$$

$$\boxed{V_{NB}(No) = 1.3412} \longrightarrow \boxed{No}$$

Normalise   of $\boxed{Yes}$.

$$V_{NB}^{(Yes)} = \frac{V_{NB}(Yes)}{V_{NB}(Yes) + V_{NB}(No)}$$

$$'' = \frac{2.0118}{2.0118 + 1.3412}$$

$$\boxed{V_{NB}(Yes) = 0.6}$$

Normalize   of $\boxed{No}$.

$$V_{NB}^{(No)} = \frac{V_{NB}(No)}{V_{NB}(No) + V_{NB}(Yes)}$$

$$'' = \frac{1.3412}{1.3412 + 2.0118}$$

$$\boxed{V_{NB}(No) = 0.4}$$

So, $V_{NB}(Yes) > V_{NB}(No)$
$$(0.6) > (0.4)$$

Now, the Target   is $\boxed{Yes}\;\boxed{0.6}$

$\longleftarrow \quad \longrightarrow$