|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Shoping Dataset** | | | | |
| No. | Day | Discount | Free Delivery | Purchase |
| 1 | Weekday | yes | yes | yes |
| 2 | Weekday | yes | yes | yes |
| 3 | Weekday | yes | yes | yes |
| 4 | Weekday | yes | yes | yes |
| 5 | Weekday | yes | yes | yes |
| 6 | Weekday | yes | yes | yes |
| 7 | Weekday | yes | yes | yes |
| 8 | Weekday | yes | yes | yes |
| 9 | Weekday | yes | yes | yes |
| 10 | Weekday | yes | yes | no |
| 11 | Weekday | no | yes | no |
| 12 | Weekend | yes | yes | yes |
| 13 | Weekend | yes | yes | yes |
| 14 | Weekend | yes | yes | yes |
| 15 | Weekend | yes | yes | yes |
| 16 | Weekend | yes | yes | yes |
| 17 | Weekend | yes | yes | yes |
| 18 | Weekend | yes | yes | yes |
| 19 | Weekend | no | no | no |
| 20 | Holiday | yes | yes | yes |
| 21 | Holiday | yes | yes | yes |
| 22 | Holiday | yes | yes | yes |
| 23 | Holiday | no | yes | yes |
| 24 | Holiday | no | yes | yes |
| 25 | Holiday | no | no | yes |
| 26 | Holiday | no | no | yes |
| 27 | Holiday | no | no | yes |
| 28 | Holiday | no | no | no |
| 29 | Holiday | no | no | no |
| 30 | Holiday | no | no | no |

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency Table | | Buy | |
| yes | no |
| Discount | yes | 19 | 1 |
| no | 5 | 5 |

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency Table | | Buy | |
| yes | no |
| Free Delivery | yes | 21 | 2 |
| no | 3 | 4 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Freequency Table | | Buy | |  |
| Yes | No |  |
| Day | Weekday | 9\24 | 2\6 | 11\30 |
| Weekend | 7\24 | 1\6 | 8\30 |
| Holiday | 8\24 | 3\6 | 11\30 |
|  |  | 24 | 6 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Freequency Table | | Buy | |  |
| Yes | No |  |
| Day | Weekday | 9 | 2 | 11 |
| Weekend | 7 | 1 | 8 |
| Holiday | 8 | 3 | 11 |
|  |  | 24 | 6 | 30 |

|  |  |  |  |
| --- | --- | --- | --- |
| Freequency Table | | Buy | |
| Yes | No |
| Day | Weekday | 9 | 2 |
| Weekend | 7 | 1 |
| Holiday | 8 | 3 |

1. a. P (Buy | Day = Weekday, Free Delivery = Yes, Discount = Yes)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekday | no )\*P(No Buy)

P(Discount=yes)\*P(Free Delivery = yes)\*P(Day=Weekday)

(19/24)\*(21/24)\*(9/24)\*(24/30)

(20/30)\*(23/30)\*(11/30)

= 5.319

b. P (Buy | Day = Weekday, Free Delivery = No, Discount = No)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekday | no )\*P(No Buy)

P(Discount=no)\*P(Free Delivery = no)\*P(Day=Weekday)

(1/24)\*(2/24)\*(2/24)\*(24/30)

(20/30)\*(23/30)\*(11/30)

= 4.278

c. P (Not Buy | Day = Weekday, Free Delivery = Yes, Discount = Yes)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekday | no )\*P(No Buy)

P(Discount=yes)\*P(Free Delivery = yes)\*P(Day=Weekday)

(5/6)\*(3/6)\*(2/6)\*(6/30)

(10/30)\*(7/30)\*(11/30)

= 0.001

d. P (Not Buy | Day = Weekday, Free Delivery = No, Discount = No)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekday | no )\*P(No Buy)

P(Discount=no)\*P(Free Delivery = no)\*P(Day=Weekday)

(5/6)\*(4/6)\*(2/6)\*(6/30)

(10/30)\*(7/30)\*(11/30)

= 0.457

e. P (Buy | Day = Weekend, Free Delivery = Yes, Discount = Yes)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekend | no )\*P(No Buy)

P(Discount=yes)\*P(Free Delivery = yes)\*P(Day=Weekend)

(19/24)\*(21/24)\*(7/24)\*(24/30)

(20/30)\*(23/30)\*(8/30)

= 1.191

f. P (Buy | Day = Weekend, Free Delivery = No, Discount = No)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekend | no )\*P(No Buy)

P(Discount=no)\*P(Free Delivery = no)\*P(Day=Weekend)

(1/24)\*(2/24)\*(1/24)\*(24/30)

(20/30)\*(23/30)\*(8/30)

= 8.507

g. P (Not Buy | Day = Weekend, Free Delivery = Yes, Discount = Yes)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekend | no )\*P(No Buy)

P(Discount=yes)\*P(Free Delivery = yes)\*P(Day=Weekend)

(5/6)\*(3/6)\*(1/6)\*(6/30)

(10/30)\*(7/30)\*(8/30)

= 0.65

h. P (Not Buy | Day = Weekend, Free Delivery = No, Discount = No)

P(Discount = yes | no)\*P(Free Delivery = yes | no)\*P(Day = Weekend | no )\*P(No Buy)

P(Discount=no)\*P(Free Delivery = no)\*P(Day=Weekend)

(5/6)\*(4/6)\*(1/6)\*(6/30)

(10/30)\*(7/30)\*(8/30)

= 0.9