Week 3 Case Study: A Better Secret Sauce of Stats Success

Name of the Writer

Name of the University

Week 3 Case Study: A Better Secret Sauce of Stats Success

**Question 1**

**a)** 0.50

**Calculation**

=151/300 = 0.50

**b)** 0.93

**Calculation**

=48++63+40+36+32+23+9+16+11/300 = 0.93

**c)** 0.67

**Calculation**

= 101/151 = 0.67

**d)** 0.17

**Calculation**

= 51/300 = 0.17

**e)** 0.01

**Calculation**

= 2/300 = 0.01

**f)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Rating | Male | Female | 21 - 24 | 25 - 34 | 35 - 49 |
| 4 | 0.17 | 0.13 | 0.12 | 0.11 | 0.08 |
| 5 | 0.23 | 0.28 | 0.16 | 0.21 | 0.13 |

Based on the calculations, the best target audience would be the females with ratings 5, which is 0.28

**Calculation**



**Question 2**

**a)** Mean = 4.39 and Standard Deviation = 37.70

**Calculation**



**b)** 0.15

**Calculation**

= 13/85 = 0.15

**c)** 0.54

**Calculation**

= 14+12+10+5+5/85 = 0.54

**d)** 0.14

**Calculation**

= 12/85 = 0.14

**e)** 0.21

**Calculation**

= 12/7+6+6+13+14+12 = 0.21

**Question 3**

**a)**

|  |  |
| --- | --- |
| Drinking Temperature | |
| Sample | Temperature |
| 1 to 5 | 242 |
| 6 to 10 | 221 |
| 11 to 15 | 237 |
| 16 to 20 | 245 |
| 21 to 25 | 242 |
| 26 to 30 | 258 |
| Total | 1445 |

**b)**

**Question 4**

**a)**

|  |  |  |
| --- | --- | --- |
|  | Drinking Temperature | |
| Sample | Temperature | Z score |
| 1 to 5 | 242 | 26.10 |
| 6 to 10 | 221 | 23.68 |
| 11 to 15 | 237 | 25.53 |
| 16 to 20 | 245 | 26.45 |
| 21 to 25 | 242 | 26.10 |
| 26 to 30 | 258 | 27.95 |
| Total | 1445 |  |
| Standard deviation | 8.66 |  |
| Mean | 15.93 |  |

**Calculation**



**b)** 0.2

**Calculation**

= 42+39+44+39+43/1445 = 0.2

**c)** The probability is zero because in no sample of wine was the temp 60 or above 60 in the data given.

**d)** 42.08%

**Calculation**

= 52+50+52+50+49+52+52+50+49+49+49+54/1445 = 42.08%