Accelerated Geometry Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Two Way Table Practice Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The following data set provides information about the outcomes of various passengers on the Titanic.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Class |  |  |
|  | First | Second | Third | Crew | Total |
| Alive | 203 | 118 | 178 | 212 |  |
| Deceased | 122 | 167 | 528 | 673 |  |
| Total |  |  |  |  |  |

a) What % of the ship were second class passengers who survived?

b) What % of survivors were in second class?

c) What % of second class passengers survived?

d) What % were not crew, given that they survived?

e) What % survived, given that they were in third class?

f) Are the events Alive and Second Class Passenger independent?

2. Debbie examines what she’s been watching on Netflix and Hulu and places them into categories.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Netflix | Hulu | TOTAL |
| Film | 43 | 16 |  |
| Comedy |  | 5 | 17 |
| Sport | 21 |  |  |
| TOTAL |  | 24 | 100 |

a) Complete the table above.

b) Calculate the probability of choosing a program from Netflix.

c) Calculate the probability of choosing a comedy from Hulu.

d) Calculate the probability of choosing a program from Netflix given that it’s a film.

e) Calculate the probability of choosing a comedy given that you are only watching Hulu.

f) Are the events Netflix and Sport independent?

3. Jamie investigated hair and eye color.

Let F = someone with fair hair Let D = someone with dark hair

Let B = someone with blue eyes Let O = someone with eyes of some other color

|  |  |  |  |
| --- | --- | --- | --- |
|  | Fair hair | Dark hair | TOTAL |
| Blue eyes | 8 |  | 13 |
| Other |  | 10 |  |
| TOTAL | 15 | 15 |  |

a) Complete the table above.

**Calculate the following probabilities:**

b) P(B) e) P(B’)

c) P(F and B) f) P(O|F)

d) P(B|D) g) P(O or D)

h) Are the events Blue eyes and Dark hair independent?

4. A travel agent recorded the bookings made on one Saturday.

Let F = France Let S = Spain Let G = Germany

Let C = Car/Ferry Let P = Plane

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | France | Spain | Germany | TOTAL |
| Car/Ferry | 15 | 8 |  | 28 |
| Plane |  |  |  |  |
| TOTAL | 18 | 14 |  | 40 |

a) Complete the table above.

**Calculate the following probabilities:**

b) P(G) f) P(C and G)

c) P(F|P) g) P(S or G)

d) P(P|F) h) P(C|G)

e) P(S’) i) Are the events Germany and Plane independent?