You go to a dance and help clean up afterwards. To help, you collect the soda cans, Coca-Cola and Sprite, and organize them. Some cans were on the table and some were in the garbage. Seventy-two total cans were found. 42 total cans were found in the garbage and fifty total cans were Coca-Cola. 14 Sprite cans were found on the table. Complete the two-way frequency chart.AND a relative frequency chart

Two Way Frequency

|  | Coca-Cola | Sprite | Total |
|---|---|---|---|
| Table |  |  |  |
| Garbage |  |  |  |
| Total |  |  |  |

Relative Frequency

|  | Coca-Cola | Sprite | Total |
|---|---|---|---|
| Table |  |  |  |
| Garbage |  |  |  |
| Total |  |  |  |

The students in a seaside school are to have extra swimming lessons if they cannot swim. The table below gives information about the students in grades 7, 8 and 9.

Two Way Frequency

|  | Can swim | Cannot swim | Total |
|---|---|---|---|
| Grade 7 | 120 | 60 |  |
| Grade 8 | 168 | 11 |  |
| Grade 9 | 172 | 3 |  |
| Total |  |  |  |

Relative Frequency

|  | Can swim | Cannot swim | Total |
|---|---|---|---|
| Grade 7 |  |  |  |
| Grade 8 |  |  |  |
| Grade 9 |  |  |  |
| Total |  |  |  |

a. Complete the table
b. How many students need swimming lessons?
c. How many students are there in 8th grade?
d. How many of the 7th grade students cannot swim?
e. How many students in grades 7 and 8 can swim?
f. How many students are there altogether in grades 7, 8, and 9?
g. Create a two-way relative frequency table for the above data.
h. What is the relative frequency of students who are in 8th grade and cannot swim?
i. What percentage of 9th grade students can swim?
j. What percentage of students cannot swim?
k. What percentage of students are 9th graders?

Put Solutions Here

b. _____

c. _____
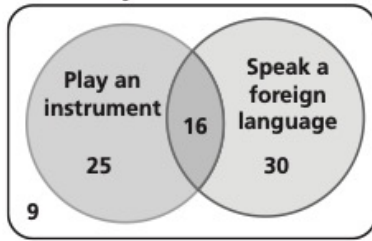
d. _____

e. _____

f. _____

i. _____

h. _____

i. _____

j. _____

k. _____

The Venn diagram shows the results of a survey in which 80 students were asked whether they play a musical instrument and whether they speak a foreign language. Use the Venn diagram to complete the two-way table. Then use the two-way table to answer each question.

**Survey of 80 Students**

Play an instrument: 25, 16, Speak a foreign language: 30, 9

|  | Play an Instrument | Do Not Play an Instrument | Total |
|---|---|---|---|
| Speak a Foreign Language |  |  |  |
| Do Not Speak a Foreign Language |  |  |  |
| Total |  |  |  |

a.  How many students play an instrument?

b.  How many students speak a foreign language?

c.  How many students play an instrument and speak a foreign language?

d.  How many students do not play an instrument and do not speak a foreign language?

e.  How many students play an instrument and do not speak a foreign language?

Hamster Election Results 2020 Use the voter data in the table below to answer the questions that follow.

|  | McWhiskers | Twitchnose | Liam | Total |
|---|---|---|---|---|
| Furr-Ball City | 34 |  |  | 167 |
| Squiggle Town |  | 47 | 23 |  |
| Vermin Village | 52 | 45 | 51 |  |
| Total | 164 | 135 |  |  |

M = Voted to for McWhiskers      T = Voted to for Twitchnose      L = Voted to for Liam

F = Lives in Furr-Ball City      S = Lives in Squiggle Town      V = Lives in Vermin Village

**Find the Probabilities of the following events.  State your answers as Fractions <u>and</u> Percents.**

$P(S) =$

$P\left(F \cap M\right) =$

$P\left(F \mid L\right) =$

$P\left(\overline{V}\right) =$

$P\left(T \cup L\right) =$

$P\left(L \mid F\right) =$

$P(T) =$