

Assignment

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Hand Calculations

Use the data for the two variables (**VAR1** and **VAR2**) below to construct (by hand without R) a (i) two-way frequency table, (ii) a row-percentage table, (iii) a column-percentage table, and (iv) a total-percentage table. [Hint: use **VAR1** as the columns.]

VAR1 C C A C A B C A A B A B B A C C A C A B B A A C A C B B
VAR2 x x y x x y x y y y x x y y y x x x y y x y x y x y x y

Fire Blight Disease

Researchers conducted an experiment on 24 trees subject to a fire blight disease. Each tree was treated with one of several treatments (no action (control), removal of the affected branches, sprayed foliage with an antibiotic and removal of the affected branches). Each tree was then recorded according to one of three outcomes (tree died in the same year, tree died 2-4 years after, or tree died more than 4 years after the disease was noticed). The frequency table below show the treatment and outcome results for each of the 24 trees. Use these results to answer the questions below.

treat	outcome		
	Within 1 Year	2-4 Years Later	4+ Years Later
No Action (Control)	5	2	0
Removed Branches	3	3	2
Sprayed and Removed	2	4	3

1. What is the response variable?
2. What percentage of trees in the control treatment died within the first year after the disease was noticed?
3. What percentage of all trees were in the control treatment and died within the first year after the disease was noticed?
4. What percentage of trees in the control treatment died more than four years after the disease was noticed?
5. What percentage of trees that died 2-4 years after the disease was noticed were in the control treatment?
6. What percentage of all trees died within the first year after the disease was noticed?

7. Make an overall conclusion about how the different treatments affected survival of the trees. [Note: You should construct and refer to a specific type of percentage table.]

Religion and Genetic Counseling

Weitz (1979) conducted a survey of general and family practitioners, pediatricians, and obstetrician-gynecologists in the cities of Phoenix and Tucson, Arizona. In one part of the study, each physician was classified according to religion and whether they supported genetic counseling for parents or not. A summary of their responses for Jewish, Protestant, and Catholic physicians is shown in the table below. Use these results to answer the questions below.

	Support	Don't Support
Jewish	21	26
Protestant	36	142
Catholic	10	52

1. What percentage of Jewish physicians support genetic counseling?
2. What percentage of Catholic physicians don't support genetic counseling?
3. What percentage of all physicians surveyed were Protestant?
4. What percentage of those physicians not supporting genetic counseling were Catholic?
5. What percentage of all physicians supported genetic counseling?
6. Make an overall conclusion about how support (or not) for genetic counseling differs (or not) among physicians with different religious beliefs. [Note: You should construct and refer to a specific type of percentage table.]