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Calculating relative frequencies in a contingency table

Problem | Explanation

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Calculating relative frequencies in a contingency table

QUESTION

A sample of 248 adults is selected. The adults are classified according to their voter registration status and their preferred source of current events information. The results are given in the contingency table below.

		Preferred source of information			
		Television	Newspapers	Radio	Internet sites
Voting registration status	Registered	33	49	17	42
	Not registered	28	35	24	20

Among the adults in the sample who prefer to obtain their information through radio, what is the relative frequency of those who are registered to vote?

Round your answer to two decimal places.

17+24 = 41

$\frac{17}{41} = 0.41463$

0.41

Calculating relative frequencies in a contingency table

A sample of 385 people is selected. The people are classified according to place of residence ("urban", "suburban", or "rural"). They are also classified according to highest educational degree earned ("no college degree", "two-year degree", "four-year degree", or "advanced degree"). The results are given in the contingency table below.

	No college degree	Two-year degree	Four-year degree	Advanced degree
Urban	39	15	32	16
Suburban	39	41	21	22
Rural	43	50	17	50

Proportion

What is the relative frequency of people in the sample whose place of residence is urban and who have an advanced degree?

Round your answer to two decimal places.

0.04

$\frac{16}{385} = 0.04$

Calculating relative frequencies in a contingency table

A sample of 329 students at a university is surveyed. The students are classified according to gender ("female" or "male"). They are also classified according to major ("biology", "business", "engineering", "mathematics", or "computer science"). The results are given in the contingency table below.

	Biology	Business	Engineering	Mathematics	Computer science
Female	40	18	37	18	50
Male	32	46	39	15	34

What is the relative frequency of biology majors in the sample?

Round your answer to two decimal places.

0.22

40+32 = 72 = 0.22
329

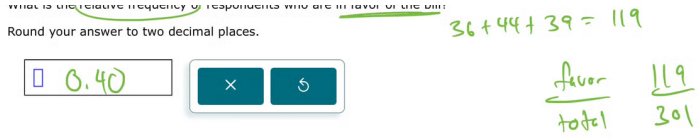
Calculating relative frequencies in a contingency table

A sample of 301 people is surveyed. The people are classified according to political affiliation ("Democrat", "Republican", or "Independent"). T
according to opinion on a bill ("in favor of", "opposed to", or "indifferent to"). The results are given in the contingency table below.

	In favor of	Opposed to	Indifferent to
Democrat	36	43	26
Republican	44	17	36
Independent	39	20	40

proportion

What is the relative frequency of respondents who are in favor of the bill?


What is the relative frequency of respondents who are in favor of the bill?
Round your answer to two decimal places.
0.40
36 + 44 + 39 = 119
favor
total
119
301