MAFS.912.S-ID.2.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
Item Types	Editing Task Choice – May require choosing a correct interpretation.
	Equation Editor – May require providing a numeric value.
	GRID – May require constructing a frequency table.
	Hot Text – May require identifying marginal frequencies on a frequency table or constructing a frequency table.
	Matching Item – May require matching relative frequencies with categorical data.
	Multiple Choice – May require selecting a contingency table or selecting a numeric value.
	Multiselect – May require choosing relative frequencies, associations, and/or trends for a two-way frequency table.
	Open Response – May require interpreting relative frequencies in the context of the data.
	Table Item – May require completing a table.
Clarifications	Students will create or complete a two-way frequency table to summarize categorical data.
	Students will determine if associations/trends are appropriate for the data.
	Students will interpret data displayed in a two-way frequency table.
	Students will calculate joint, marginal, and conditional relative frequencies.
Assessment Limit	In data with only two categorical variables, items should require the student to determine relative frequencies and use the frequencies to complete the table or to answer questions.
Stimulus Attribute	Items should use real-world data and be set in a real-world context.
Response Attributes	Items may require the student to apply the basic modeling cycle.
	Items may require the student to choose an appropriate level of accuracy.
	Items may require the student to choose and interpret units.
Calculator	Yes

Sample Item	Item Type
	Table Item

A high school drama teacher organizes a musical production. He wants to record the number of students involved in each part of the production. He uses a two-way table to display the data.

	Actors	Musicians	Stage Crew	Total
Boys	17			53
Girls		22		73
Total			43	126

The drama teacher knows that approximately 55% more girls participate in the production as actors than as stage crew members.

Complete the two-way table to show a possible breakdown of students.