

10 Representative Samples

EVALUATED



- 1** A local farmer's market plans to add an additional type of baked pie to the choices already available. They will be surveying the customers to see which flavour they should add. In a typical day, they have 1000 visitors of all different ages. They would like a representative sample that includes 100 of the visitors. Using the distribution shown in the table below, how many of the people in the sample should be 60 years old or older?

Ages	Number of Customers
0 - 29	400
30 - 59	250
60 +	350
Total	1000

My Calculations

- 2** The table below shows the distribution of the students at a local high school. Fifty students are expected to answer a survey about their lunches. How many students that only bring a lunch from home should be included in a representative sample?

Types of Lunch	Number of Students
Buys Lunch Everyday	90
Brings Lunch Everyday	110
Sometimes Buys/Sometimes Brings	50
Total	250

My Calculations

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- 3** The table below shows the distribution of the students at Lester B. Pearson High School. 120 students are expected to answer a survey about school dances. How many students from the 9th grade should be included in a representative sample?

Grade	Number of Students
9th	300
10th	350
11th	280
12th	270

My Calculations	

- 4** The table below shows the distribution of the residents in a nearby town. 300 residents are asked to answer questions about their town. How many residents in a representative sample should be homeowners with land?

Type of Home	Number of Residents
Renters	4,800
Homeowners with Land	6,000
Homeowners without Land (Condos, Townhouses, etc.)	9,000
Other	10,200

My Calculations	

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- 5** The table below shows the distribution of the students at a local school. Fifty students are asked to answer questions about their recent class trip. How many students in a representative sample should be females in the 10th grade?

Grade	Male	Female	Total
9th	54	44	98
10th	60	52	112
11th	56	64	120
12th	62	68	130
Total	232	228	460

My Calculations

My Calculations									

- 6** The table below shows the distribution of the customers at a local Walmart in the past week. 270 customers will be asked to answer questions in a survey about extending the hours at that store. How many customers in the representative sample should be females that shop between 8am and 12pm?

Time	Male	Female	Total
8:00 am – 11:59 am	840	960	1800
12:00 pm – 3:59 pm	800	630	1430
4:00 pm – 7:59 pm	500	680	1180
8:00 pm – 11:59 pm	420	570	990
Total	2560	2840	5400

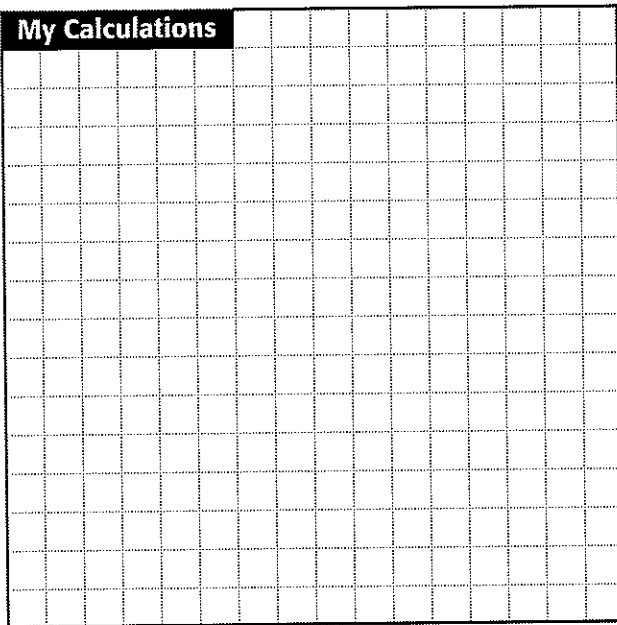
My Calculations

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- 7 The table below shows the distribution of the visitors that ride the Maid of the Mist at Niagara Falls during one trip. Sixty of the visitors will be asked to answer questions about their enjoyment of the ride. How many visitors in a representative sample should be male and from the US and other countries?

	Male	Female
Canada	70	80
US & other countries	90	60

My Calculations



- 8 The local Rock Climbing & Adventures club is taking a survey of its members to plan future adventures. The table below shows the distribution of their members. If the sample is representative of their membership, how many people in a 20 person sample will be male and under 18 years of age?

	Male	Female
18 & Older	34	33
Under 18	16	17

My Calculations

