

WORKSHEET

Two-way tables

- 1 The favourite pizza toppings for a group of Year 12 students are shown in the two-way table.

Complete the table to answer the following questions.

	Male	Female	
BBQ meat lovers	19		40
Supreme	14		
Hawaiian		16	19
		39	

- How many males were there?
 - How many students preferred Supreme as their favourite?
- 2 The employees in a city office were surveyed on their main mode of transport to work that morning.

	Male	Female	
Train or bus		10	21
Car	22	13	
Ferry		8	
Walking or bike	1		2
	38		

- How many females were there?
 - How many employees came to work by ferry that morning?
- 3 60 people leaving a shopping complex were asked whether they lived locally (within 5 km) and whether they had spent less than 1 hour, 1–2 hours or more than 2 hours at the complex. Of the 42 people living locally, 14 had spent less than 1 hour and 3 had spent more than 2 hours. Altogether, 15 people had spent less than 1 hour and 14 had spent more than 2 hours.
- Construct a two-way table of this information.
 - How many people spending 1–2 hours at the complex did not live locally?
- 4 A group of 50 university graduates were surveyed to find the type of business degree they obtained. Of those surveyed, 19 graduates had a Bachelor of Commerce (BCom), 14 graduates a Bachelor of Economics (BEcon), and the remaining graduates had a Bachelor of Business Management (BBusMan). Out of the 28 male graduates surveyed, 6 had a BEcon and 12 had a BCom.
- Construct a two-way table of this information.
 - How many graduates with a BBusMan were female?

- 5 At the Carindale Bus Interchange, 45 people boarded a bus. All were going to the Gabba, South Bank or the city. Of the 18 female passengers, 2 were going to the Gabba and 6 to the city. In total, 17 passengers were going to South Bank and 25 to the city.
- a Construct a two-way table of this information
 - b How many passengers going to the Gabba were male?
 - c How many passengers going to the city were male?

- 6 The data below shows the results of Mathematics subjects chosen by Year 12 students at a small high school and their performance in a recent exam. The first letter shows the course studied: Specialist Mathematics (S), Mathematical Methods (M), General Mathematics (G), Essential Mathematics (E). The second letter shows the exam result: pass (P) or fail (F). Construct a two-way table to show this information. Are there any patterns in the data?

G, P;	E, P;	G, P;	M, F;	G, P;	E, P;
G, P;	M, P;	M, P;	S, P	M, P;	M, P;
G, F;	G, P;	G, P;	M, P;	E, P;	G, P;
M, F;	G, P	M, P;	S, F;	M, P;	G, P;
E, F;	G, P;	G, P;	M, P;	G, P;	M, P
G, P;	E, P;	S, P;	G, P;	S, P;	G, F;
G, P;	S, P;	G, P;	G, P	E, P;	G, P;
M, F;	M, P;	M, P;	S, F;	G, P;	G, P;
G, P;	M, F	M, P;	M, F;	G, P;	M, P;
G, P;	M, P;	S, P;	G, P;	G, P;	M, P
G, P;	E, F;	E, P;	M, P;	M, P;	G, P;
M, P;	G, F,	G, P;	M, P	G, P.	

- 7 The data below shows the results of a survey of people who rent (R) or have a mortgage (M) on a home, and the number of times they eat take-away or eat out in a week. Using time groupings of 1 or less per week, 2 or 3 times per week, or more than 3 times per week, compile a two-way table of this information. Are there any patterns in the data?

R, 2;	R, 4;	R, 3;	M, 1;	R, 3;	M, 1;
M,3;	R, 2;	M, 0;	M, 1	M, 1;	R, 1;
R, 3;	R, 0;	R, 5;	M, 1;	M, 1;	R, 2;
R, 2;	M, 0	R, 2;	R, 1;	M, 2;	R, 3;
M, 1;	R, 1;	R, 3;	M, 1;	R, 1;	M, 1
R, 1;	R, 3;	M, 1;	R, 4;	M, 1;	R, 4;
M, 1;	R, 2;	R, 1;	M, 1	M, 1;	R, 1;
M, 0;	M, 1;	R, 1;	M, 1;	M, 1;	R, 1;
M, 2;	M, 1				

Answers

1 a 36 males

b 16 students

	Male	Female	
BBQ meat lovers	19	21	40
Supreme	14	2	16
Hawaiian	3	16	19
	36	39	75

2 a 32 females

b 12 employees

	Male	Female	
Train or bus	11	10	21
Car	22	13	35
Ferry	4	8	12
Walking or bike	1	1	2
	38	32	70

3 a

	Less than 1 hour	1–2 hours	More than 2 hours	
Living locally	14	25	3	42
Not living locally	1	6	11	18
	15	31	14	60

b 6 people

4 a

	Male graduates	Female graduates	
BCom	12	7	19
BEcon	6	8	14
BBusMan	10	7	17
	28	22	50

b 7 graduates

5 a

	Male passengers	Female passengers	
Gabba	1	2	3
South Bank	7	10	17
City	19	6	25
	27	18	45

b 1 passenger

c 19 passengers

6

		Exam result		
		Pass	Fail	
Maths subject studied	Specialist Mathematics	5	2	7
	Mathematical Methods	19	5	24
	General Mathematics	29	3	32
	Essential Mathematics	6	2	8
		59	12	71

General Mathematics has the highest number of students passing, and Mathematical Methods has the highest number of students failing.

7

		Number of times per week			
		1 or less	2-3	More than 3	
Living status	Renting	10	12	4	26
	Mortgage	21	3	0	24
		31	15	4	50

People who rent eat out or get take-away more often than those with a mortgage.