



Two-way tables

Mana Maths

Te reo Māori terms



ripanga

table

[Open in Te Aka](#)

raraunga

data

[Open in Te Aka](#)

tūponotanga

probability

[Open in Te Aka](#)

kāwai

category

[Open in Te Aka](#)

Foundation

1. How many students play football?

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Football | 8 | 5 | □ |
| Netball | 6 | 9 | 15 |
| Total | 14 | 14 | 28 |

2. What is the total for netball?

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Football | 7 | 4 | 11 |
| Netball | 6 | 9 | □ |
| Total | 13 | 13 | 26 |

3. How many students are there altogether?

| | Bring lunch | Buy lunch |
|---------|-------------|-----------|
| Year 9 | 7 | 11 |
| Year 10 | 5 | 9 |
| Total | 12 | 20 |

4. The football row total is 14. What is the missing entry?

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Football | 6 | □ | 14 |
| Netball | 8 | 10 | 18 |
| Total | 14 | 18 | 32 |

5. The girls column total is 18. What is the missing entry?

| | Boys | Girls | Total |
|---------|------|-------|-------|
| Present | 9 | 10 | 19 |
| Absent | 3 | □ | 5 |
| Total | 12 | 18 | 30 |

6. Which fruit is more popular?

| | Boys | Girls | Total |
|---------|------|-------|-------|
| Apples | 5 | 7 | 12 |
| Bananas | 3 | 5 | 8 |
| Total | 8 | 12 | 20 |

7. What is the total wearing hats?

| | Boys | Girls | Total |
|-----------|------|-------|--------------------------|
| Wear hats | 9 | 7 | <input type="checkbox"/> |
| No hats | 4 | 6 | 10 |
| Total | 13 | 13 | 26 |

8. Out of all students, what is the probability a random student chose hockey?

| | Boys | Girls | Total |
|--------|------|-------|-------|
| Hockey | 3 | 4 | 7 |
| Other | 5 | 8 | 13 |
| Total | 8 | 12 | 20 |

9. Which is more likely: cycle or not cycle?

| | Boys | Girls | Total |
|--------------|------|-------|-------|
| Cycle | 2 | 4 | 6 |
| Do not cycle | 8 | 10 | 18 |
| Total | 10 | 14 | 24 |

10. A student says a row total can be smaller than one entry in that row. Are they correct?

| | Boys | Girls | Total |
|-------|------|-------|-------|
| Music | 7 | 5 | 12 |
| Art | 4 | 6 | 10 |
| Total | 11 | 11 | 22 |

Proficient

1. Find the rugby row total.

| | Boys | Girls | Total |
|----------|------|-------|--------------------------|
| Rugby | 9 | 6 | <input type="checkbox"/> |
| Football | 5 | 4 | 9 |
| Total | 14 | 10 | 24 |

2. Total swimmers = 13.
How many girls swim?

| | Boys | Girls | Total |
|-------------|------|--------------------------|-------|
| Swim | 8 | <input type="checkbox"/> | 13 |
| Do not swim | 6 | 5 | 11 |
| Total | 14 | 10 | 24 |

3. Total boys = 14. How many boys do not have pets?

| | Boys | Girls | Total |
|----------|--------------------------|-------|-------|
| Has pets | 9 | 7 | 16 |
| No pets | <input type="checkbox"/> | 5 | 10 |
| Total | 14 | 12 | 26 |

4. Total girls = 16. How many girls bought lunch?

| | Boys | Girls | Total |
|---------------|------|--------------------------|-------|
| Brought lunch | 8 | 7 | 15 |
| Bought lunch | 6 | <input type="checkbox"/> | 15 |
| Total | 14 | 16 | 30 |

5. The table total is 30.
How many chose music?

| | Year 9 | Year 10 | Total |
|-------|--------|--------------------------|--------------------------|
| Art | 5 | 6 | 11 |
| Music | 8 | <input type="checkbox"/> | <input type="checkbox"/> |
| Total | 13 | 17 | 30 |

6. The table total is 28.
If 12 travelled by bus, how many used another way?

| | Year 9 | Year 10 | Total |
|-------|--------|---------|--------------------------|
| Bus | 5 | 7 | 12 |
| Other | 9 | 7 | <input type="checkbox"/> |
| Total | 14 | 14 | 28 |

7. Write the probability a random student is a boy.

| | Boys | Girls | Total |
|-----------|------|-------|-------|
| Drama | 8 | 6 | 14 |
| Not drama | 10 | 8 | 18 |
| Total | 18 | 14 | 32 |

8. Write the probability a random student chose drama.

| | Boys | Girls | Total |
|-------|------|-------|-------|
| Drama | 4 | 5 | 9 |
| Other | 9 | 7 | 16 |
| Total | 13 | 12 | 25 |

9. Which probability is smaller: rugby or hockey?

| | Boys | Girls | Total |
|--------|------|-------|-------|
| Rugby | 5 | 3 | 8 |
| Hockey | 6 | 4 | 10 |
| Other | 4 | 4 | 8 |
| Total | 15 | 11 | 26 |

- 10.** A student says if the column total is 15 and one entry is 9, the other entry must be 5. Are they correct?

| | Boys | Girls | Total |
|-------|------|-------|-------|
| Choir | 9 | 6 | 15 |
| Band | 4 | 5 | 9 |
| Total | 13 | 11 | 24 |

Excellence

1. How many students are there altogether?

| | Boys | Girls | Total |
|---------|------|-------|-------|
| Apples | 7 | 8 | 15 |
| Bananas | 5 | 10 | 15 |
| Total | 12 | 18 | 30 |

2. Use the same apples/banana table. Write the probability a random student likes apples.

3. Use the same apples/banana table. Write the probability a random student is a girl who likes bananas.

4. The football row total is 15. How many students are not in the football row?

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Football | 8 | 7 | 15 |
| Netball | 9 | 12 | 21 |
| Total | 17 | 19 | 36 |

5. One column total is 20. What is the other column total?

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Football | 8 | 7 | 15 |
| Netball | 12 | 9 | 21 |
| Total | 20 | 16 | 36 |

6. Write the probability a random student has a pet.

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Has pets | 11 | 9 | 20 |
| No pets | 5 | 7 | 12 |
| Total | 16 | 16 | 32 |

7. Using the same pets table, write the probability a random student is a girl without a pet.

8. Using the same pets table, which is more likely: having a pet or not having a pet?

9. A student says the total of all row totals should match the total of all column totals. Are they correct? Explain.

| | Boys | Girls | Total |
|----------|------|-------|-------|
| Has pets | 11 | 9 | 20 |
| No pets | 5 | 7 | 12 |
| Total | 16 | 16 | 32 |

- 10.** A student says the denominator in a table probability should always be a row total. Are they correct? Explain.

| | Bus | Walk | Total |
|---------|-----|------|-------|
| Year 9 | 14 | 9 | 23 |
| Year 10 | 6 | 6 | 12 |
| Total | 20 | 15 | 35 |