



MathShed

Year 5/6

Home Learning

Lesson 5: To be able to read a range of two-way tables



Term: Autumn

Unit: Block 3 – Statistics

Lesson: 5



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To be able to read a range of two-way tables

Success criteria:

- ✓ I can read a range of tables that show two different sets of data displayed both vertically and horizontally, applying my addition and subtraction skills to solve sum and difference problems as well as when writing my own questions
- ✓ I can explain my reasoning when reading a range of tables that show two different sets of data displayed both vertically and horizontally, applying my addition and subtraction skills to solve sum and difference problems as well as when writing my own questions



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To be able to read a range of two-way tables

Starter:

Who won the most events?

competitor	100 m dash	pollen throw	comb toss
Poppy	12.3 s	23 cm	12 cm
Petal	13.2 s	32 cm	14 cm
Daisy	14.5 s	41 cm	15 cm
Astrobee	16.8 s	22 cm	11 cm
Buzz	15.4 s	33 cm	18 cm
Honey	11.9 s	42 cm	17 cm

Explain your answer.



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competitor	100 m dash	pollen throw	comb toss
Poppy	12.3 s	23 cm	12 cm
Petal	13.2 s	32 cm	14 cm
Daisy	14.5 s	41 cm	15 cm
Astrobee	16.8 s	22 cm	11 cm
Buzz	15.4 s	33 cm	18 cm
Honey	11.9 s	42 cm	17 cm

Honey won the most events, as Honey won both the 100 m dash and the pollen throw, completing the 100 m dash in the shortest amount of time, 11.9 s, and having thrown the pollen the furthest, 42 cm.



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To be able to read a range of two-way tables

Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

How many male assistants are there?



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

There are 47 male assistants at the hospital.



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

How many female nurses are there?



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

There are 9 female nurses.



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

How many surgeons are there altogether?



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To be able to read a range of two-way tables

Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

There are 4 surgeons altogether.



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

How many female surgeons and male doctors are there altogether?



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

Altogether there are 8.

Three female surgeons and five male doctors.



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

How many people work at the hospital altogether?



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Talking Time:

The table below shows the staff at a local hospital.

	female	male	total
assistant	32	47	79
nurse	9	8	17
doctor	3	5	8
surgeon	3	1	4

108 people work at the hospital altogether.



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To be able to read a range of two-way tables

Activity 1:

The table below shows the staff at another local hospital.

Answer the following:

- a) How many male doctors are there?
- b) How many male nurses are there?
- c) How many nurses are there in total?
- d) How many female people work at the hospital?
- e) How many people work at the hospital altogether?
- f) How many female assistants and male nurses are there in total?

	female	male	total
assistant	43	46	89
nurse	11	12	23
doctor	6	3	9
surgeon	4	3	7



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To be able to read a range of two-way tables

Activity 1:

The table below shows the staff at another local hospital.

	female	male	total
assistant	43	46	89
nurse	11	12	23
doctor	6	3	9
surgeon	4	3	7

Answer the following:

- a) There are 3 male doctors.
- b) There are 12 male nurses.
- c) There are 23 nurses in total.
- d) 64 female people work at the hospital in total.
- e) 128 people work at the hospital altogether.
- f) There are 55 female assistants (43) and male nurses (12) in total.



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To be able to read a range of two-way tables

Activity 2:

Complete the table below based on top football team's performance in European competitions, then write questions for a table partner to answer.

	Real Madrid	Bayern	Barcelona	total
won	257	191	176	
drawn	74	71	71	
lost	99	74	56	
played				



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To be able to read a range of two-way tables

Activity 2:

Complete the table below based on top football team's performance in European competitions, then write questions for a table partner to answer.

	Real Madrid	Bayern	Barcelona	total
won	257	191	176	624
drawn	74	71	71	216
lost	99	74	56	229
played	430	336	303	1,069



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To be able to read a range of two-way tables

Activity 2:

Complete the table below based on top football team's performance in European competitions, then write questions for a table partner to answer.

	Real Madrid	Bayern	Barcelona	total
won	257	191	176	624
drawn	74	71	71	216
lost	99	74	56	229
played	430	336	303	1,069

Example question:

Who has lost the most European games? (Real Madrid)



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Activity 2:

Complete the table below based on top football team's performance in European competitions, then write questions for a table partner to answer.

	Real Madrid	Bayern	Barcelona	total
won	257	191	176	624
drawn	74	71	71	216
lost	99	74	56	229
played	430	336	303	1,069

Example question:

How many more European games has Real won compared with Barcelona?
($257 - 176 = 81$ more games have been won by Real Madrid)



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To be able to read a range of two-way tables

Activity 3:

Sunnyfield School completed a survey to find out how many people have a plant-based diet and how many people have a diet that includes meat.

Fill in the gaps and answer the following:

- a) How many more girls are plant-based than boys?
- b) How many more boys eat meat than girls?
- c) How many more children eat meat than eat a plant-based diet?

	boys	girls	total
plant-based	53		
omnivore		58	
total	128		253



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Activity 3:

Sunnyfield School completed a survey to find out how many people have a plant-based diet and how many people have a diet that includes meat.

Fill in the gaps and answer the following:

- a) How many more girls are plant-based than boys?
- b) How many more boys eat meat than girls?
- c) How many more children eat meat than eat a plant-based diet?

	boys	girls	total
plant-based	53	67	120
omnivore	75	58	133
total	128	125	253



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To be able to read a range of two-way tables

Activity 3:

Sunnyfield School completed a survey to find out how many people have a plant-based diet and how many people have a diet that includes meat.

Fill in the gaps and answer the following:

- a) 14 more girls are plant-based than boys.
- b) 17 more boys eat meat than girls.
- c) 13 more children eat meat than eat a plant-based diet.

	boys	girls	total
plant-based	53	67	120
omnivore	75	58	133
total	128	125	253



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To be able to read a range of two-way tables

Activity 4:

Use the following information to create your own two-way table.

150 people completed a survey about where they went on their summer holidays:

- In June, 23 people went to Mexico and 11 people went to Jamaica.
- In July, 25 people went to Mexico and 15 people went to Brazil.
- In August, 10 people went to Jamaica.
- 63 people went to Mexico in total.
- 40 people went to Brazil altogether.
- Altogether 47 people went away in June.



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Activity 4:

Use the following information to create your own two-way table.

Solution:

	Brazil	Jamaica	Mexico	total
June	13	11	23	47
July	15	26	25	66
August	12	10	15	37
total	40	47	63	150

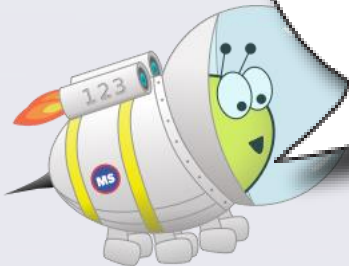


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To be able to read a range of two-way tables

Evaluation:

Bayern and Real Madrid drew the same amount of European games.



	Real Madrid	Bayern	Barcelona	total
won	257	191	176	624
drawn	74	71	71	216
lost	99	74	56	229
played	430	336	303	1,069

Astrobee has made an error.

Explain the error Astrobee has made and what the correct response would be.

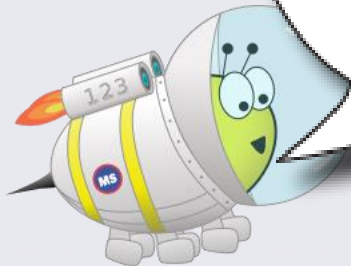


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Evaluation:

Bayern and Real Madrid drew the same amount of European games.



	Real Madrid	Bayern	Barcelona	total
won	257	191	176	624
drawn	74	71	71	216
lost	99	74	56	229
played	430	336	303	1,069

Real Madrid drew the same number of European games as Bayern has lost, 74.
Bayern has in fact drawn the same number of European games as Barcelona, 71.



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Success criteria:

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