

01.03.21

WALT: Calculate efficiently to solve problems using data

Vocabulary check

estimate

efficient

strategy

explain

justify

Reena has two favourite football teams and likes to keep track of how many people attend their matches. Here are some figures from her 2019 notebook.

Club	Attendance 19/1/19	Attendance 26/1/19
Manchester United	54,789	55,334
Bristol Rovers	3,627	6,370

In total how many people watched Manchester United over the two weeks?

In total how many people watched Bristol Rovers over the two weeks?

What calculations do you need to perform? How do you know?

What is a good estimate for each calculation?



The totals have been completed in this version of the table.
Were your calculations accurate?

Club	Attendance 19/1/19	Attendance 26/1/19	Total attendance
Manchester United	54,789	55,334	110,123
Bristol Rovers	3,627	6,370	9,997

Over two weeks, how many more people watched Manchester than Bristol?
How many people attended the four games in total?

What calculations do you need to perform? How do you know?
What is a good estimate for each calculation?



Club	Attendance 19/1/19	Attendance 26/1/19	Total attendance
Manchester United	54,789	55,334	110,123
Bristol Rovers	3,627	6,370	9,997

Reena says "About ten times as many people watch Manchester United as watch Bristol Rovers."

Her cousin says "No, about 100 times as many watch Man United!"

Who is correct? Explain why.



Try It

1. $10103 - 9998 = ?$
2. $10104 - 9999 = ?$
3. $10105 - 10000 = ?$

What do you notice? What's the same? What's different?

4. $1300 \times 10 = ?$
5. $130 \times 100 = ?$
6. $13 \times 1000 = ?$

What do you notice? What's the same? What's different?

7. $9877 + 8544 = ?$
8. $9880 + 8541 = ?$
9. $9900 + 8521 = ?$
10. $10000 + 8421 = ?$

What do you notice? What's the same? What's different?

Use It

Here is a set of data. Choose what you think it is showing - it's up to you!

?	?	?
?	63,124	59,988
?	11,109	9,992

Write down three labels for the columns.

Write down two labels for the rows.

Create two questions for someone else to answer from this data.

Make an easier question and a harder question and explain why you think they are easy or hard.

Prove It

1 What's wrong with this? - What mistakes have been made here? Explain and correct.

a) $730 \times 1000 = 0.73$

b) $2020 \times 100 = 220000$

2 Most likely incorrect response - what mistake is someone most likely to make on each question? Explain why...then explain the best way to avoid it!

a) $107076 + 99384 = ?$

b) $107076 - 99384 = ?$