

Singing Star

You need: a copy of the judges' scores table (see copymaster), a computer spreadsheet/graphing program (if available), classmates

ACTIVITY ONE

Alexia is a contestant in this year's *Singing Star* programme. Whether she stays or goes depends on the judges' scores and the public's votes, with the producer having the final say.

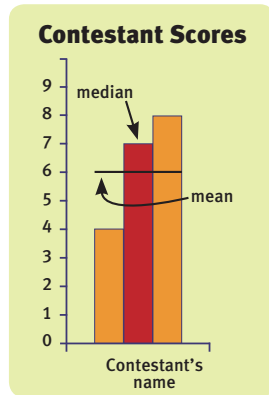


Here are the judges' scores (out of 10) for round 1 of the competition:

Order	Contestant	Judge 1	Judge 2	Judge 3	Total	Median	Mean (1 d.p.)
1	Alexia	4	7	8			
2	Hone	4	8	4			
3	Ding	2	6	5			
4	Lesieli	5	8	6			
5	Tāne	3	7	4			
6	Simon	3	9	5			
7	Ariana	2	4	6			
8	Ethan	4	4	5			
9	Whetū	4	8	5			
10	Aoife	3	6	7			

1. a. Create a bar graph that shows the judges' scores.
 b. What does your graph tell you about the contestants?
 c. What does your graph tell you about the judges?

2. a. Complete your copy of the table on page 5 or enter the data into a spreadsheet.
 b. Mark and label each contestant's median and mean scores on your bar graph, for example:



The **median** is the middle number when all the numbers in a set are arranged in order.

The **mean** is the sum of the items in the data set divided by the number of items. (In this context, the mean is sometimes called the average.)

- c. What does your graph show you now about the contestants?



3. a. With a classmate, use your data from question 2 to investigate why the mean can be below, on, or above the median.

- b. Using the information from the judges' score table, rank the candidates from top to bottom. Describe your method for ranking.
 c. Based on these results, which contestant should be eliminated? Why?

4. Here are the results of the public's text votes for round 1:

Contestant	Public votes
Alexia	34 787
Hone	23 876
Ding	11 750
Lesieli	32 723
Tāne	21 989
Simon	36 876
Ariana	22 454
Ethan	11 200
Whetū	33 239
Aoife	11 872



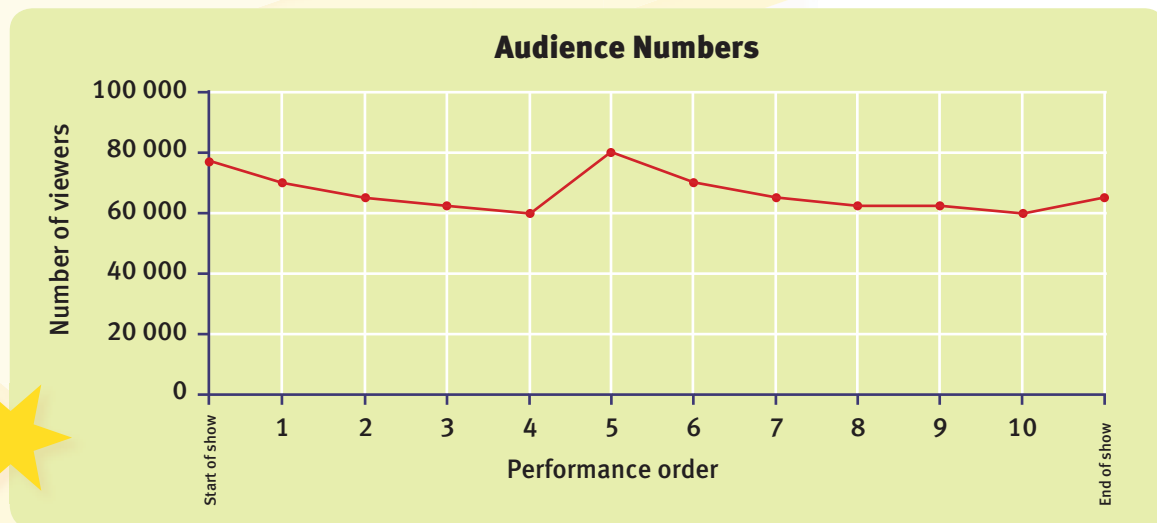
Tāne is so cool!



- a. Rank the contestants according to the public vote.
 - b. What similarities and differences are there between the public-vote rankings and the judges' rankings?
5. Based on all the information you have, who should be eliminated and why? Share your reasoning with some classmates who have reached a different decision. See if you can reach agreement.

ACTIVITY TWO

The number of people watching the show is affected by which contestant is performing.



1. How might the data in the graph above affect the producer's decision about who is to be eliminated?
2. What changes would enable this graph to tell its story more effectively?

Focus

Using statistics in decision making