

## Labsheet 2ACE

## Exercise 27

27. A recent survey asked 25 middle-school students how many movies they see in one month. The table and line plot below show the data.

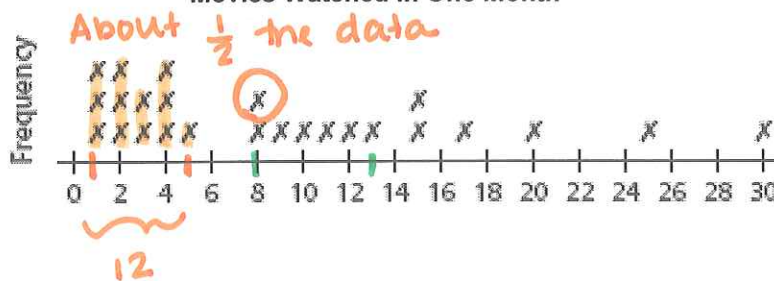
Number of Movies Watched in One Month

Student	Number
Wes	2
Tomi	15
Ling	13
Su Chin	1
Michael	9
Mara	30
Alan	20
Jo	1
Tanisha	25

Student	Number
Susan	4
Gil	3
Enrique	2
Lonnie	3
Ken	10
Kristina	15
Mario	12
Henry	5

Student	Number
Julian	2
Alana	4
Tyrone	1
Rebecca	4
Anton	11
Jun	8
Raymond	8
Anjelica	17

Movies Watched in One Month



- a. Identify one section of the line plot where about half the data values are grouped.

25 pieces, about 12 pieces  
is half: From 1-5

Identify a different section where about one quarter of the data is grouped.

25 pieces, about 6 or 7 pieces is a  
quarter: From 8 to 13.

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b. What is the **range** of the data? Explain how you found it.

The range is 29. To find the range you subtract the minimum from the maximum.  $\text{Max} - \text{min} = \text{Range}$ . Max: 30  
min: 1

c. Find the **mean** number of movies watched by the students. Explain.

$1 + 1 + 1 + 2 + 2 + 2 + 3 + 3 + 4 + 4 + 4 + 5 + 8 + 8 + 9 + 10 + 11 \dots 30$   
 $30 - 1 = 29$   
 mean: 9

d. What do the **range and mean** tell you about the **typical** number of movies watched for this group of students?

If we have a range of 29 and a mean of 9, the typical number of movies watched is close to the low end of our data.

e. Find the **median** number of movies watched.

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Are the **mean** and the **median** the same? Why do you think this is so?

No