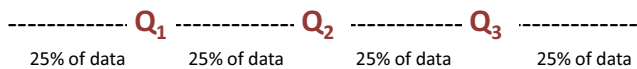


## 9.6 Measures of Position: Quartiles

How do you fold a paper into 4 equal parts?



$Q_2 = \text{Median}$

Quartiles  $Q_1, Q_2, Q_3$  divide a set of ordered data into four groups with an equal amount of data in each.



1

Ex 1: Consider the ordered set of  $n = 13$  data

1 4 7 8 9 9 11 16 17 19 25 30 30

$Q_2 =$

$Q_1 =$

$Q_3 =$

$Q_3 =$

2

Ex 2: Consider the following frequency table for the number of pets that students have.

$n =$   $M_o =$

$\bar{x} =$

$M_d = Q_2 =$

$Q_1 =$

$Q_3 =$

# of pets	frequency
0	4
1	8
2	5
3	2

Ex 3: (p286#4) In a class of 40 students, if the 1<sup>st</sup> quartile is 64, the median is 70 and the 3<sup>rd</sup> quartile is 78. What is the maximum number of students that have a mark less than you if you got...

- a) 62%                      b) 69%                      c) 76%

We recreate the data:

- 1) 40 students means 10 in each quarter
- 2) Even  $n=40$  means none of the medians is an actual mark

4

Practice: page 286 # 1, 2, 3



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