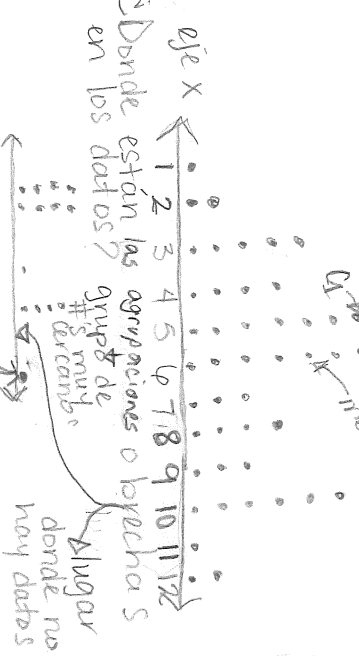


Un número, fracción o porcentaje que describe una parte de información.

los datos se muestran en una línea de números

Diagrama de puntos

MEDIA - el promedio.  $6.34$   
La suma de los valores  $\div$  el # total de valores  
MEDIANA - el número de promedio lo  
MDD - el más frecuente. #6  
RANGO - el máximo el mínimo  
 $12 - 1 = 11$



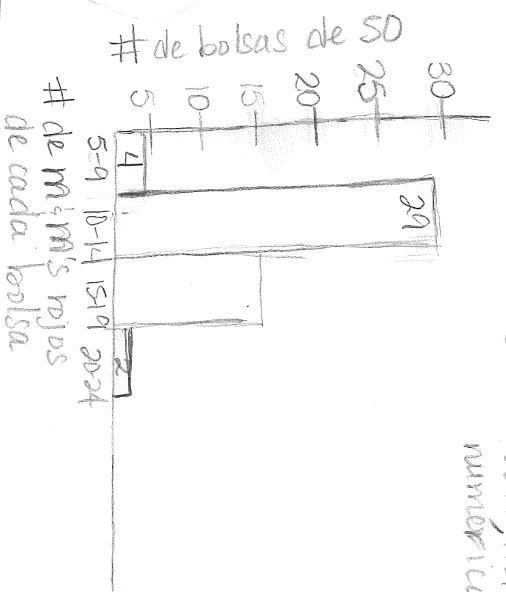
¿Existen valores atípicos?  
Números aislados  
(#s mucho más grandes o pequeños que los otros)

Título/ Enfoque:  
Estadísticas

¿% en la base de la Sra. Alibari que prefiere el fútbol al baloncesto?

¿Qué se miden o se cuentan con estos datos?  
¿Qué forma tienen los datos?

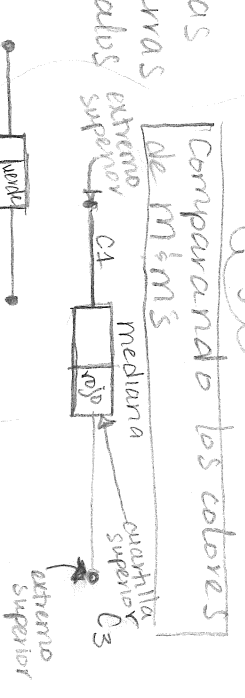
Histograma  
Mín's rojos  
de las barras  
SDn, intervalos  
numéricos



¿Cómo lo obtienes?  
① reunir información  
② Analizarlo  
③ Interpretarlo

¿Qué significa?  
la caja demuestra el 50% de los datos. "Los bigotes" demuestran el otro 50%

Diagrama de caja



¿Cuál es el cuartil inferior? (mediana del extremo inferior)  
¿Cuál es el cuartil superior? (mediana de la mitad superior)  
¿Cuál es la desviación media absoluta?

Estándares y prácticas matemáticas

1. Mostrar datos numéricos en diagramas de puntos, histogramas y diagramas de caja mientras atendemos con precisión.

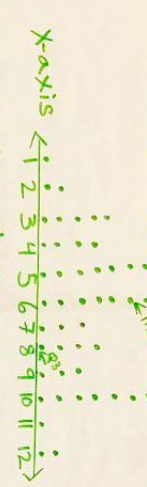
2. Construir argumentos viables y cuestionar el razonamiento de otros, al hacer y contestar preguntas acerca de los datos.

La investigación  
Lo que sabemos sobre estadísticas  
Lo que queremos aprender estadísticas

5  $\frac{3}{5}$  12%  $\leftarrow$  What they are  
 a number, fraction or percentage that describes a piece of information  $\rightarrow$  **Statistics**  
 How do you get them? What does it mean?  
 $\leftarrow$  mean?  
 $\leftarrow$  gather info  $\rightarrow$   $\textcircled{1}$  Analyze it  $\rightarrow$   $\textcircled{2}$  Interpret it

data shown as a dot on a number line  
**Dot Plot**

mean-average 6.34  
 sum of the values  $\div$  the values  
 median-middle-number 6  
 mode-most frequent # 6  
 range-maximum-minimum 12-1=11  
**Green minis**

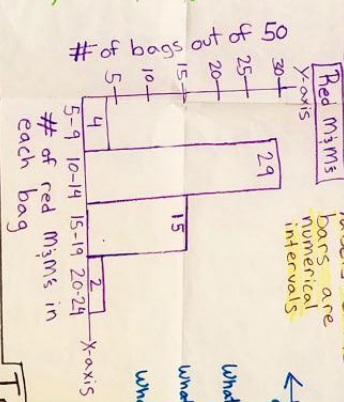


Where are the clusters or gaps in the data?  
 group of #s close together  
 place where there is no data

Are there any outliers?  
 # much larger or smaller than others

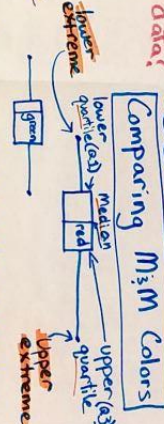
What is measured or counted by the data?  
 What is the shape of the data?

**Histogram**



labels for the bars are numerical intervals

**Box Plot**



What is the lowest quartile? (median of the lower half)  
 What is the upper quartile? (median of the upper half)  
 What is the mean absolute deviation?

**Inquiry Statistics**  
 What we want to learn...

What are statistics?  
 Statistics is the study of data.  
 Why do we need to learn about them?  
 Statistics help us analyze our world. It is important to ask questions and not what does made mean?  
 The number or value that occurs most often. (populernoth.com)

What careers use statistics?  
 Information management use first data science  
 Business use statistics  
 Sports use statistics  
 Education use statistics  
 Health care use statistics  
 Marketing use statistics  
 Finance use statistics  
 Research use statistics  
 Government use statistics  
 Journalism use statistics  
 Law use statistics  
 Engineering use statistics  
 Agriculture use statistics  
 Environmental science use statistics  
 Social science use statistics  
 Psychology use statistics  
 History use statistics  
 Geography use statistics  
 Computer science use statistics  
 Physics use statistics  
 Chemistry use statistics  
 Biology use statistics  
 Medicine use statistics  
 Astronomy use statistics  
 Meteorology use statistics  
 Oceanography use statistics  
 Geology use statistics  
 Archaeology use statistics  
 Anthropology use statistics  
 Linguistics use statistics  
 Philosophy use statistics  
 Political science use statistics  
 Economics use statistics  
 Sociology use statistics  
 Criminology use statistics  
 Forensic science use statistics  
 Public health use statistics  
 Environmental health use statistics  
 Occupational health use statistics  
 Transportation use statistics  
 Urban planning use statistics  
 Disaster management use statistics  
 Risk management use statistics  
 Quality management use statistics  
 Project management use statistics  
 Supply chain management use statistics  
 Human resources use statistics  
 Customer service use statistics  
 Sales use statistics  
 Marketing use statistics  
 Advertising use statistics  
 Public relations use statistics  
 Journalism use statistics  
 Law use statistics  
 Education use statistics  
 Health care use statistics  
 Finance use statistics  
 Business use statistics  
 Government use statistics  
 Non-profit use statistics  
 Research use statistics  
 Academia use statistics  
 Industry use statistics  
 Consulting use statistics  
 Freelance use statistics  
 Entrepreneurship use statistics  
 Real estate use statistics  
 Insurance use statistics  
 Banking use statistics  
 Technology use statistics  
 Telecommunications use statistics  
 Energy use statistics  
 Utilities use statistics  
 Transportation use statistics  
 Manufacturing use statistics  
 Construction use statistics  
 Agriculture use statistics  
 Mining use statistics  
 Fishing use statistics  
 Forestry use statistics  
 Hospitality use statistics  
 Entertainment use statistics  
 Media use statistics  
 Publishing use statistics  
 Printing use statistics  
 Retail use statistics  
 Wholesale use statistics  
 Distribution use statistics  
 Logistics use statistics  
 Shipping use statistics  
 Air transport use statistics  
 Sea transport use statistics  
 Land transport use statistics  
 Pipeline transport use statistics  
 Space transport use statistics  
 Postal use statistics  
 Courier use statistics  
 Express use statistics  
 Freight use statistics  
 Freight forwarding use statistics  
 Freight broker use statistics  
 Freight agent use statistics  
 Freight consultant use statistics  
 Freight manager use statistics  
 Freight coordinator use statistics  
 Freight controller use statistics  
 Freight supervisor use statistics  
 Freight operator use statistics  
 Freight driver use statistics  
 Freight loader use statistics  
 Freight unloader use statistics  
 Freight inspector use statistics  
 Freight auditor use statistics  
 Freight analyst use statistics  
 Freight planner use statistics  
 Freight scheduler use statistics  
 Freight tracker use statistics  
 Freight reporter use statistics  
 Freight communicator use statistics  
 Freight negotiator use statistics  
 Freight mediator use statistics  
 Freight arbitrator use statistics  
 Freight lawyer use statistics  
 Freight judge use statistics  
 Freight jury use statistics  
 Freight witness use statistics  
 Freight expert use statistics  
 Freight consultant use statistics  
 Freight advisor use statistics  
 Freight coach use statistics  
 Freight mentor use statistics  
 Freight sponsor use statistics  
 Freight partner use statistics  
 Freight ally use statistics  
 Freight competitor use statistics  
 Freight rival use statistics  
 Freight enemy use statistics  
 Freight foe use statistics  
 Freight enemy use statistics  
 Freight foe use statistics

Standards and Mathematical Practices  
 Display numerical data on dot plots, histograms and box plots, while attending to precision.

2) Construct viable arguments and critique the reasoning of others by asking and answering questions about the data.

Clarifying  
 Will you please explain...?  
 What did you mean when you stated...?  
 Agreeing  
 My idea is similar to...  
 My idea is... and want to add...  
 Disagreeing  
 My views are different than... I believe...  
 That's not correct, why...  
 I disagree because...

