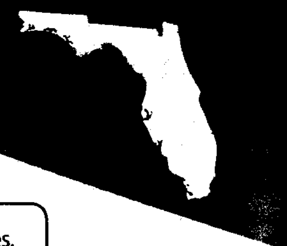


5.1 Scatter Plots

Learning Target: Use scatter plots to describe patterns and relationships between two quantities.

Success Criteria:
- I can make a scatter plot.
- I can identify outliers, gaps, and clusters in a scatter plot.
- I can use scatter plots to describe relationships between data.

Data Analysis and Probability

MA.8.DP.1.1 Given a set of real-world bivariate numerical data, construct a scatter plot or a line graph as appropriate for the context.

MA.8.DP.1.2 Given a scatter plot within a real-world context, describe patterns of association.

Bell Ringer 1/9

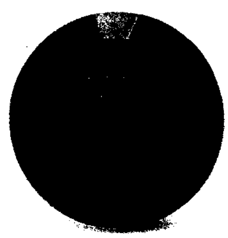
Exploration 1 Finding Relationships Between Data

Work with a partner. The weights and circumferences of several sports balls are shown.

Basketball

21 oz
30 in.

Water Polo

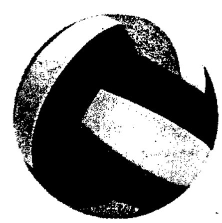


15 oz
27 in.

Soccer

16 oz
28 in.

Volleyball



10 oz
26 in.

Racquetball

1.4 oz
7 in.

Baseball

5 oz
9 in.

Golf

1.6 oz
5.3 in.

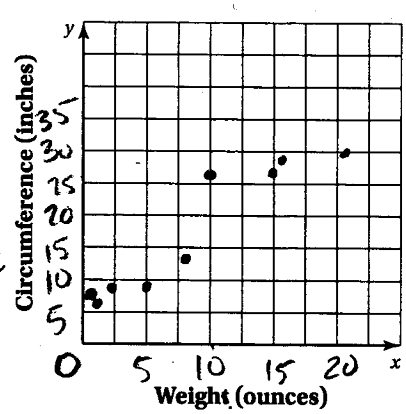
Softball

7 oz
12 in.

Tennis

2 oz
8 in.

a. Represent the data in the coordinate plane. Explain your method.



b. Is there a relationship between the size and the weight of a sports ball? Explain your reasoning.

yes the bigger balls are heavier than smaller.

c. Is it reasonable to use the graph to predict the weights of the sports balls below? Explain your reasoning.

- **Kickball:** circumference = 26 in.
- **Bowling ball:** circumference = 27 in.

no bc a bowling ball is really heavy

MTR REFLECT ON YOUR METHOD
How does graphing data help you make a prediction?

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