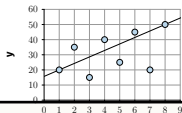


Push Tasks



Justify and critique TARSOG descriptions of realistic scatter plots.

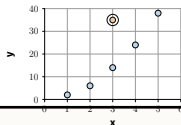
1. Justify why this plot shows a weak relationship despite an overall positive trend.



2. Critique: “This scatter plot has a strong negative trend.” What is missing from this TARSOG description?

3. Design a scatter plot description (without drawing) with: non-linear trend, positive association, moderate relationship, one outlier, two groupings.

4. Identify all six TARSOG components for this plot, justifying each.



Push Tasks



Reason about how TARSOG components interact and inform real decisions.

5. How can an outlier change the interpretation of the association's strength?

6. Explain why a grouping might indicate a hidden third variable (e.g. gender, age group) affecting the data.

7. Compare how a strong linear relationship and a strong non-linear relationship would each be used for prediction.

8. A scatter plot has constant scatter for $x < 5$ but non-constant (increasing) scatter for $x > 5$. What might this suggest?