



Covariation: Assessment

<http://topdrawer.aamt.edu.au/Statistics/Assessment/Assessment-tasks>

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1. What is a graph? What are graphs used for? Where have you seen graphs used?
2. Draw an example of a graph. Any type will do. Put as much detail on the graph as possible. What does the graph show?
3. Have you used the computer to draw graphs before? What programs did you use? Describe what sort of graphs you drew. What were the graphs used to show?
4. A science class was studying temperature. They used a thermometer to measure the room temperature every 5 minutes for 30 minutes.
First they turned a heater on for 15 minutes.
Next they turned a heater off for 10 minutes.
Lastly they opened the window for 5 minutes.
They wrote down these numbers:

Time (minutes)	5	10	15	20	25	30
Temperature (°C)	15	20	25	25	25	15

Draw a graph to show how the temperature changed over time.

5. Some information about individual students is on separate cards, like the ones below. What questions about the group of students could be answered by using the information on the cards?

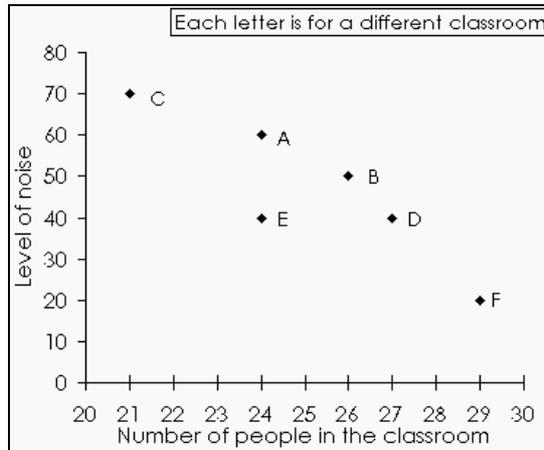
Student	1	Student	2	Student	3
Gender	Male	Gender	Male	Gender	Female
Height	1.3 m	Height	1.3 m	Height	1.2 m
Eye Colour	Blue	Eye Colour	Brown	Eye Colour	Brown
Hair Colour	Blond	Hair Colour	Brown	Hair Colour	Brown
Right/Left Handed	Left	Right/Left Handed	Right	Right/Left Handed	Right
Shoe Size	6	Shoe Size	7	Shoe Size	5
Hobby	YuGiOh	Hobby	Cricket	Hobby	Soccer
Pet	Budgie	Pet	Dog	Pet	Dog
Brothers	0	Brothers	0	Brothers	2
Sisters	1	Sisters	0	Sisters	1

AAMT — TOP DRAWER TEACHERS

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6. Some students were doing a project on noise. They visited 6 different classrooms. They measured the level of noise in the class with a sound meter. They counted the number of people in the class. They used the numbers to draw this graph.



- (a) Pretend you are talking to someone who cannot see the graph. Write a sentence to tell them what the graph shows. “The graph shows...”
- (b) How many people are in Class D?
- (c) If the students went to another class with 23 people, how much noise do you think they would measure? Please explain your answer.
- (d) Jill said, “The graph shows that classrooms with more people make less noise.”
Do you think the graph is a good reason to say this?
Please explain your answer.