

Year 10 Statistical Literacy Pre-Test

Statistical Literacy Pre-Test Year 10

Name : _____

1. Jo wants to know if the pupils at her school want to have hot chocolate sold at the Tuckshop, so she asks everyone in **her class** what they think of this idea. Explain why this is not a **random** survey of pupils in **her school**.

2. For her survey Jo took a sample. What does “taking a sample” mean?

3. Here are some phrases from newspaper headlines that tell us how likely something will happen.

A	Cairns <u>in doubt</u> to play
B	Team <u>looking good</u> for the big game.
C	58% success rate at Target Training
D	<u>Impossible</u>
E	It's a <u>sure thing</u>
F	There's a 50-50 chance

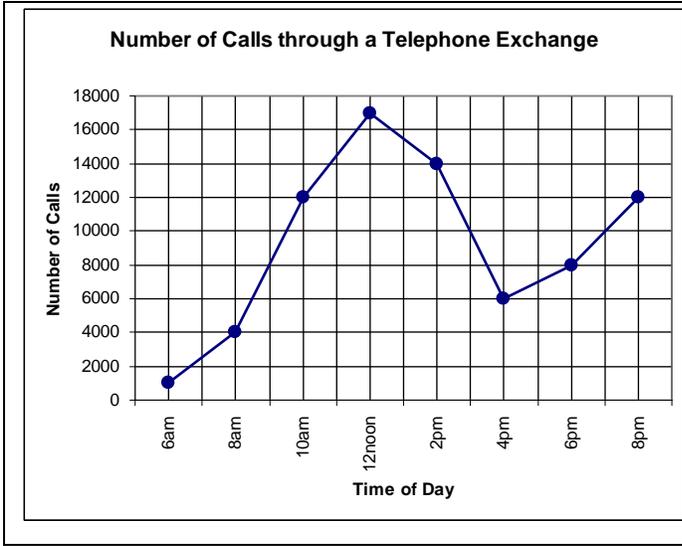
Please mark on the scale below the likelihood of each of these phrases A to E. F is done for you as an example.

Likelihood

Low Chance _____ High Chance

_____ F _____

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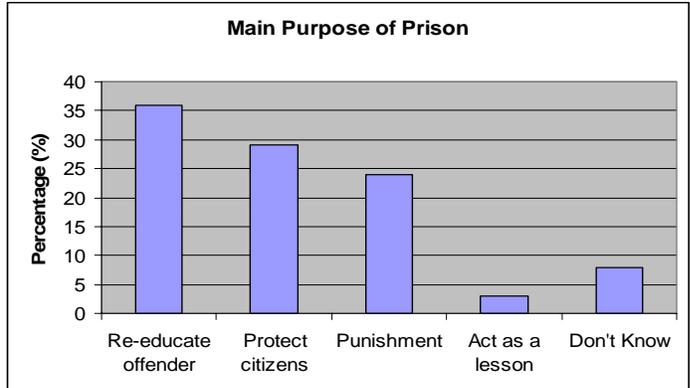


4(a) How many phone calls were there at 9am?

(b) Estimate the number of calls at 1.30pm

(c) At what two times were there 6000 calls?

5. For a country of its size New Zealand has a large number of people in its prisons. A poll of 1000 randomly selected New Zealand residents was conducted. They were selected from major New Zealand cities and some small towns. Here is the graph that was produced from their answers.



a) What question do you think the interviewers asked the people?

b) Do you think the poll was representative? Why or why not?

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6. Read the newspaper report below then answer the questions.

TV for toddlers interferes with brain growth, says study

Children under two should not be allowed to watch television because it increases their chances of suffering attention problems later in life, says an American study.

Television can “reprogramme” the brain, say scientists behind the project, who also urge parents not to allow older children to watch for more than two hours a day.

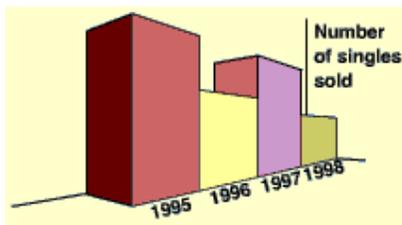
A study of 1345 children found that each hour spent in front of the set every day increased the risks of attention deficit disorders by 10%.

Researchers, who published the findings of the study in the US journal *Pediatrics*, questioned parents about their children’s viewing and asked them to rate their behaviour at seven years.

Children who watched the most TV were more likely to have problems with concentration, restlessness and were more easily confused

- What main point does this article make?
- Who was asked the questions in this study?
- Where did the researchers publish their research?
- Do you think this study would convince parents to stop their small children watching TV?
Why or why not?

7. Look at the graph below of music singles sold over a four year period and say why you think the graph is misleading.



Referenced in [Using Media Reports to Develop Statistical Literacy in Year 10 Students](#)
By Lynda Merriman. Paper presented at ICOTS-6 in July 2006.