



Just what is a Sample?

TASK A

In pairs discuss what you think a **SAMPLE** is.



Now look at the following list and discuss the following descriptions of a sample thought up by various people. Try to decide which of them may be the nearest to what a mathematician or statistician may mean if they use the word **SAMPLE**.

Description:

- A "a test"
- B "Something you put on a letter"
- C "Like a sample of shampoo or perfume"
- D "a little bit"
- E "a part of the whole thing"
- F "a small portion of something larger to try"
- G "something that is too hot"
- H "a random selection of data from a wider group"
- J "something the same as something else"

Definition of a sample:

A sample is a small part of a larger population which is representative of that population.



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TASK B

1. A presenter on TV says "In a research study on the weight of year 8 children, some researchers interviewed a sample of year 8 children." What does the word sample mean in this sentence? Discuss what would be an appropriate sample to take and why.
2. Why do you think they used a sample instead of studying all the year 8 children?

TASK C

Read the following passage. Discuss and answer the questions below in groups.

Sandra wants to buy a new car. She has narrowed her choice to either a Cantrash or an Arringa.

'Which Car' magazine says that for a sample of 400 cars of each type, Arringas broke down more often than Cantrashes.

Sandra talks to three friends. Two of them have Arringas and have had no problems with their cars. The other friend, who has a Cantrash, has had lots of trouble, so much so that they have sold the car. He says he will never buy another one.



1. What are the samples of cars stated in the passage?
2. Which car should Sandra buy? – Discuss your reasons.

Arringa Because her friend had so much trouble with his Cantrash, while her other friends had no trouble with their Arringas.

Cantrash Because the information in Which Car Magazine is based on many cases, not just one or two cars.

or It doesn't matter which car she buys. Whichever type she gets she could still be unlucky and get stuck with a particular car that would need loads of repairs.