Brandeis 4/9

Population Sizes

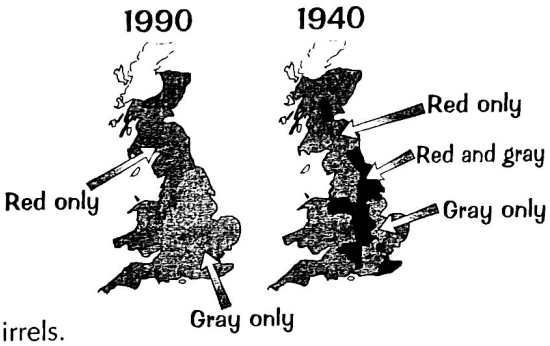
Q1 The cane toad was brought to Australia in 1935.

It grows up to 24cm long, and can lay up to 40,000 eggs in one season. It is highly poisonous to other animals, and most native tadpoles cannot live in the same water as cane toad tadpoles. The map on the right shows how far it has spread — and it is still on the march.

Suggest reasons why the cane toad **has been so successful** in Australia.

Q2 The North American gray squirrel was introduced into Britain in 1876.

Until then, the red squirrel was the only squirrel in Britain. The maps on the right show approximately where these squirrels could be found in two different years. The map on the left is from 1990, and the one on the right is from 1940.



a) **Describe the changes** in the distribution of the squirrels.

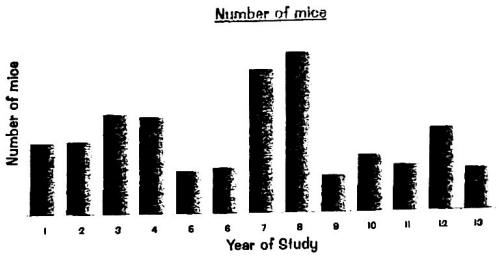
b) Suggest **reasons** for these changes.

Q3 The number of mice in woods was estimated at the same time each year for thirteen years. The results obtained are shown in the chart on the right.

a) A road was built through the middle of the woods at the end of year 8. What **effect** has this had on the **number of mice** in the woods? What **effect** will this road have on the study **in future years**?

b) Suggest **two possible reasons** for the fall in numbers between years 4 and 5 of the study.

c) Suggest **two possible reasons** for the increase in numbers between years 6 and 7 of the study.



Q4 Draw a table with the headings shown on the right.

In the "factor" column, list the things that can affect the size of a population of organisms. In the "examples" **give an example** of this factor at work. (Try to think of plant examples as well as animal examples.) One line has been done for you as an example.

Factor	Examples
Competition for water	Weeds and wheat