



Q1.

The government is trying to calculate how a country's population will change by the year 2020.

A simple population projection has been agreed which assumes that:

- Over each 5-year period, 9% of the population at the start of this period will have a child.
- Over each 5-year period, 4% of the population at the start of this period will die.
- By the end of the first year 516,000 people will join the population from another country. The annual number of immigrants will then fall by 8,000 each year (so 508,000 join the population by the end of year 2)
- There are 300,000 people who leave the country **every** year.

If the population in 2010 is 60,000,000, what will the population be at the end of 2020?

