(b) How would you modify the algorithm so that it correctly calculates the sum of the first hundred odd numbers? [2]

(c) Show how to modify the algorithm so that it plots the points with coordinates (N, S) as it calculates them. [2]

Do not take the size of the viewing window into account in your answer.

3. (a) Find the equation of the straight line which passes through the points $(2,3)$ and $(4,7)$. [2]

(b) Find a set of values of a, b and c such that the graph of the quadratic function $y = ax^2 + bx + c$, $(a \neq 0)$, passes through the points $(2,3)$ and $(4,7)$. [2]

(c) The figure shows the graph of a function which passes through $(2,3)$ and $(4,7)$.
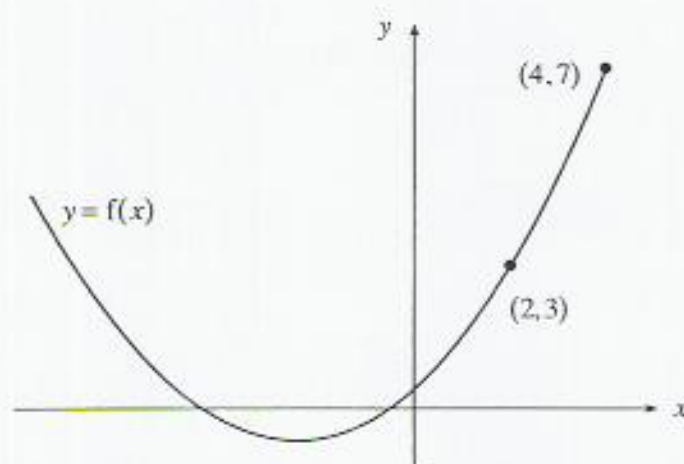
Describe, with the aid of sketches if you wish, the graphs of $y = f(x-2)$ and $y = f(2x)$. [2]

Turn over