

Subject n°26

Please, don't write on the exam paper.

The specification for a new rectangular car park states that the length x m is to be 5 m more than the breadth.

The perimeter of the car park is to be greater than 32 m. The area of the car park is to be less than 104 m^2 .

- a)** The perimeter of the car park can be modelled by a function p in terms of x . Express $p(x)$.
- b)** The area of the car park can be modelled by a function A in terms of x . Express $A(x)$.
- c)** Draw the graphs of function p and function A on the same diagram, using a graphical calculator. Choose carefully the range of x and y in the view window (and sketch the graph on the board).
- d)** Using the graphs determine the set of possible values for x .