Exercise 1
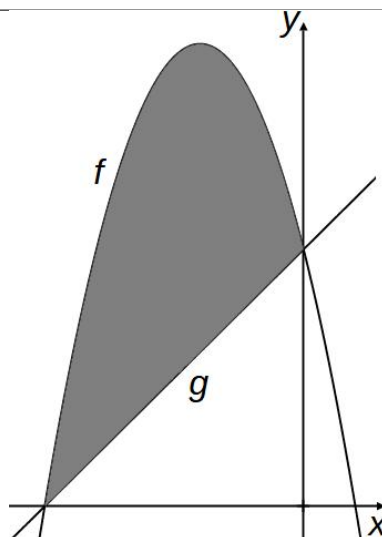

Consider the functions f and g defined by:
$f(x) = -x^2 - 4x + 5$
$g(x) = x + 5$
The diagram shows the graphs of f and g.

a) **Verify** that the graphs of f and g intersect on the coordinate axes. 2 marks

b) **Write** an integral that gives the area of the shaded region. 3 marks

You do not need to evaluate the integral, only to give an appropriate expression.