2B Part 2 Solving Equations with Functions

1. Given that the function $g(x) = 2x^2 + 3$, find;

a) the value of g(3)

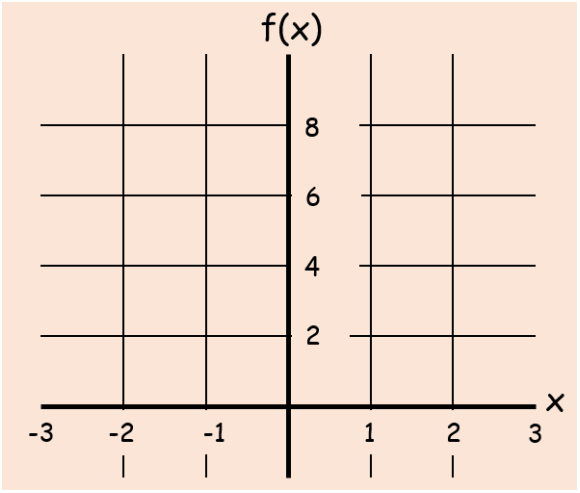
b) the value(s) of a such that g(a) = 35

c) the range of the function

2. The function f(x) is defined by:

$$f(x) = \begin{cases} 5 - 2x & x < 1 \\ x^2 + 3 & x \geq 1 \end{cases}$$

a) Sketch f(x) stating its range



b) Find the values of a such that f(a) = 19