

6 (a) The curve C_1 has equation $y = 2x^2 - 20x + 42$

Express the equation of C_1 in the form

$$y = a(x - b)^2 + c$$

where a , b and c are integers.

[3 marks]

6 (b) Write down the coordinates of the minimum point of C_1

[1 mark]

6 (c) The curve C_1 is mapped onto the curve C_2 by a stretch in the y -direction.

The minimum point of C_2 is at $(5, -4)$

Find the equation of C_2

[2 marks]