

5 A curve has equation $y = a(x + b)^2 + c$, where a , b and c are constants. The curve has a stationary point at $(-3, 2)$.

(a) State the values of b and c . **[2]**

When the curve is translated by $\begin{pmatrix} 4 \\ 0 \end{pmatrix}$ the transformed curve passes through the point $(3, -18)$.

(b) Determine the value of a . **[3]**