Pick a card...

Quadratics of the form $f(x) = x^2 + bx + c$

underground mathematics

①

$f(x) = \ldots$

(Function in form $x^2 + bx + c$)

②

Graph of $y = f(x)$

③

The graph crosses the axes at $x = \ldots\ldots$, $x = \ldots\ldots$ and $y = \ldots\ldots$

④

$f(0) = \ldots$

$f(1) = \ldots$

$f(2) = \ldots$

⑤

$f(x) = (x \ldots\ldots\ldots)^2 \ldots\ldots\ldots$

(Function in completed square form)

⑥

The lowest point on the graph is $(\ldots\ldots, \ldots\ldots)$.

⑦

x	-3	-2	-1	0	1	2	3
y							

⑧

The solution(s) of $f(x) = 0$ is/are $\ldots$

⑨

$f(x) = (\ldots\ldots\ldots)(\ldots\ldots\ldots)$

(Function in fully factorised form)