## Sketching quadratic graphs II

Mathematics

Mr Coward

## Try this

Antoni has sketched a graph below. Can you work out what the equation of the graph is?


## Independent task

1) Sketch the following quadratics, use the table to help you.

| Equation | Factorised form | Roots | Y intercept | Shape |
| :---: | :---: | :---: | :---: | :---: |
| $y=x^{2}+7 x+12$ | $y=(x+4)(x+3)$ | $x=-4, x=-3$ | $(0,12)$ | U |
| $y=x^{2}-x+42$ | $y=(x+6)(x-7)$ | $x=-6, x=+7$ |  | U |
| $y=-x^{2}+14 x-40$ | $y=-(x-4)(x-10)$ | $x=-4$, |  |  |
| $y=x^{2}-18 x+81$ |  |  | $(0,81)$ | $\cup$ |
| $y=x^{2}-64$ |  |  |  |  |
| $y=x^{2}-5 x$ |  |  |  |  |
| $y=-x^{2}-5 x$ |  | $x=4, x=-4$ |  |  |
| $y=-x^{2}-6 x-5$ |  |  |  |  |

## Explore

$(A, B)$ is the turning point. Can you find the missing points?


