

## YOU &amp; MATHS

**Find a quadratic that fits** Find a quadratic polynomial  $p(x)$  such that  $p(2) = 0$ .

From Ruffini's theorem we know that the polynomial can be written in the form  $p(x) = (x - 2) \cdot q(x)$  and the degree of  $q(x)$  has to be 1. So a suitable choice for  $q(x)$  is for example  $x - 1$ . In this case  $p(x)$  would be  $p(x) = (x - 2) \cdot (x - 1) = x^2 - 3x + 2$ .