

## **Risp 37: Parabolic Clues**

Can you deduce the values of  $a$ ,  $b$  and  $c$  for the parabola  $y = ax^2 + bx + c$ ?

There are four clues to help you:

1. the  $y$ -intercept is  $(0, 6)$
2. the curve goes through  $(4, 5)$
3. the curve has a turning point at  $(2, 3)$
4. the line of symmetry is  $x = 1$ .

It is not possible for all four clues to be true together (why not?)

Which combinations of clues enable you to identify exactly what  $a$ ,  $b$  and  $c$  must be?

Find the resulting parabola for each such combination.

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