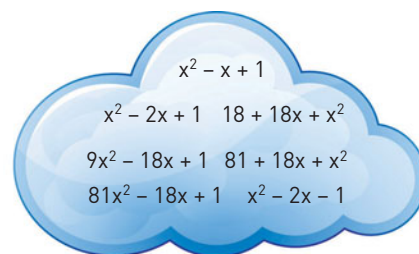


**YOU & MATHS** In the cloud Determine the correct answers choosing from the cloud.

$$(x - 1)^2 = \boxed{\phantom{000}}$$

$$(9 + x)^2 = \boxed{\phantom{000}}$$

$$(9x - 1)^2 = \boxed{\phantom{000}}$$



The cloud contains various polynomials, of which three are expansions of the squares of the three binomials on the left. These expansions will have 3 terms each: the two squares of the terms and twice the product of the terms.

The expansion of the square  $(x - 1)^2$  will have three terms, of which two have to be the squares of the terms  $x^2$  and 1. This reduces the choice to two of the polynomials in the cloud:  $x^2 - x + 1$  and  $x^2 - 2x + 1$ . Knowing that twice the product of  $x$  and  $-1$  is  $-2x$ , the choice is:  $(x - 1)^2 = x^2 - 2x + 1$ .

Two terms of the expansion of  $(9 + x)^2$  have to be 81 and  $x^2$ . This already reduces the choice from the polynomials in the cloud to one:  $(9 + x)^2 = 81 + 18x + x^2$ .

The expansion of  $(9x - 1)^2$  will have be  $81x^2$  and 1. So  $(9x - 1)^2 = 81x^2 - 18x + 1$ .