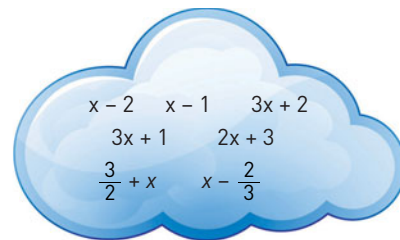


YOU & MATHS **Divisors in the cloud** Find the divisors of the polynomial $3x^2 - x - 2$ among the polynomials in the cloud.



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You can think of the polynomial $3x^2 - x - 2$ as a special trinomial and look for two numbers whose sum is -1 and whose product is -6 . Good candidates are -3 and 2 , so you can re-write the trinomial as

$$3x^2 - 3x + 2x - 2$$

and then factor it like this:

$$3x^2 - 3x + 2x - 2 = 3x(x - 1) + 2 \cdot (x - 1) = (3x + 2)(x - 1).$$

Therefore the divisors in the cloud are $3x + 2$ and $x - 1$.