The Slip Slide Method of Factoring

Step	Objective: Factor the quadratic trinomial shown	$6x^2 + 5x - 4$
1	Multiply the coefficient of x^2 by the value of the constant term and let this be the new constant. Drop the coefficient of x^2. (That is, replace the coefficient with 1.)	$x^2 + 5x - 24$
2	Factor the new trinomial.	$(x + 8)(x - 3)$
3	Divide the constant in each binomial factor by the original coefficient of x^2.	$(x + 8/6)(x - 3/6)$
4	Simplify resulting fractions, if possible.	$(x + 4/3)(x - 1/2)$
5	In each binomial factor, if the constant is a fraction, make the denominator of the fraction the coefficient of x and let the numerator be the new constant.	$(3x + 4)(2x - 1)$

Why does this work? Will this always work?