Although the product of the first terms is $64a^2$, the product of the last terms is -9, not 9, and the outer and inner products do not add up to $-48a$. The first step is to determine if this a perfect square trinomial. Then you can use the fact that a trinomial in the form $r^2 - 2rs + s^2$ can be factored as $(r - s)^2$.