6.3 Factoring Trinomials of form ax^2+bx+c Day 1

Spain version

$7x^2 - 18x + 8$

step 1: multiply entire trinomial by the leading coefficient 7 (illegal)

$49x^2 - (7)(18x) + 56$

step 2: write factor structure

$(\ \_\ )(\ \_\ )$

↑ copy 1st sign

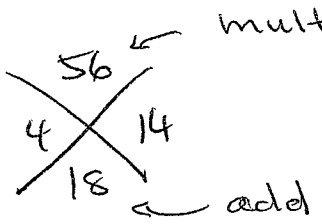
↑ mult both signs

step 3: Use perfect sq. for 1st terms.

$(7x - \ \ )(7x - \ \ )$

step 4: Find 2 #s

write largest in 1st factor



$(7x - 14)(7x - 4)$

step 5: Remove the extra (illegal) 7.

$\boxed{(x - 2)(7x - 4)}$

factor it out of the first binomial and it disappears.