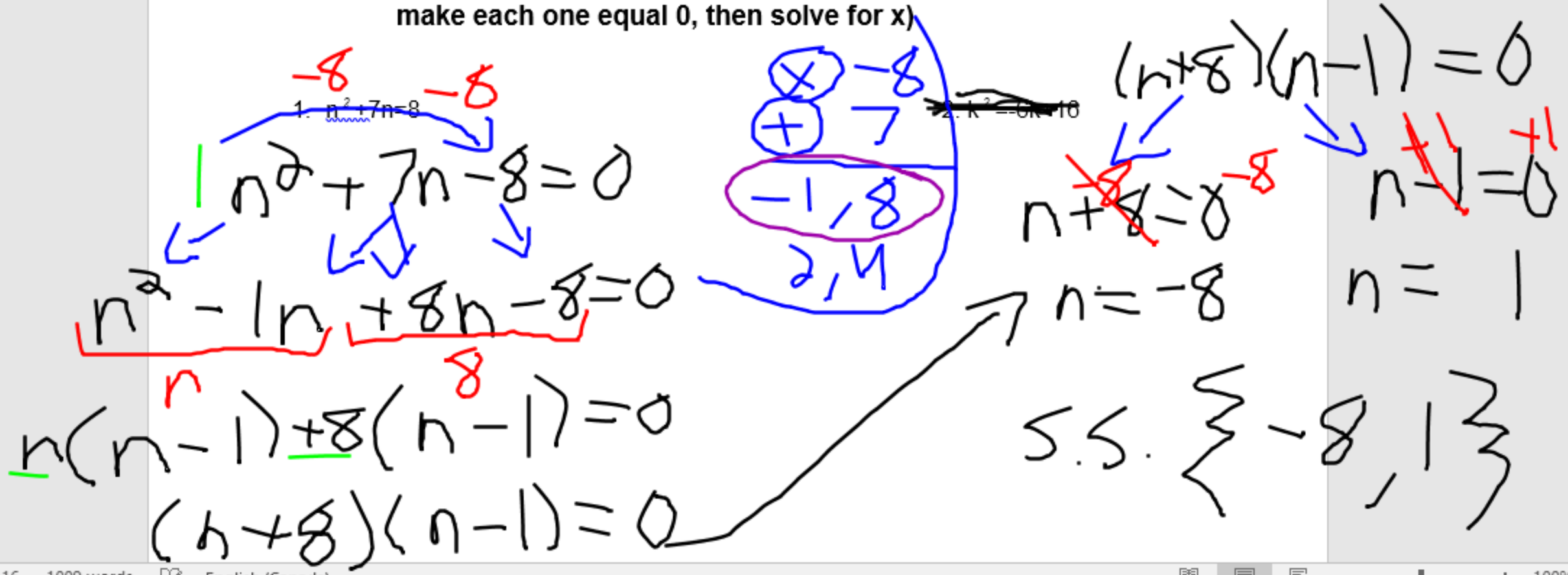
- **Follow the steps of factoring**
  1. **Is there a greatest common factor?**
  2. **What two numbers multiply to ac (first term multiplied to last term) and add to b (the middle term)?**
  3. **Decompose the middle term into the two numbers px and qx**
  4. **Common factor the 1st and 2nd half**
  5. **Leftovers and Brackets**
- **To SOLVE by factoring:**
  - **First, make sure the expression is all on the same side of the equal ~~side~~ sign**
  - **After you factor, you need to find a "solution set" (or s.s for short) by solving for the variable in each set of brackets (hint* make each one equal 0, then solve for x)**



$k^2 = -6k + 16$

$k^2 + 6k - 16 = 0$

$k^2 - 2k + 8k - 16 = 0$

k $\quad$ 8

$k(k-2) + 8(k-2) = 0$

$(k+8)(k-2) = 0$

$k+8=0$ $\qquad$ $k-2=0$

$k=-8$ $\qquad$ $k=2$

$\times$ -16

$+$ 6

$1, 16$

$-2, 8$

$4, 4$

S.S. $\{-8, 2\}$