University Math Challenge

PROBLEM # 2

April Fools!

(1) Below is an arrangement of four matches in a cross. Move **one** (and no more than one) match to make a square. Explain your answer.
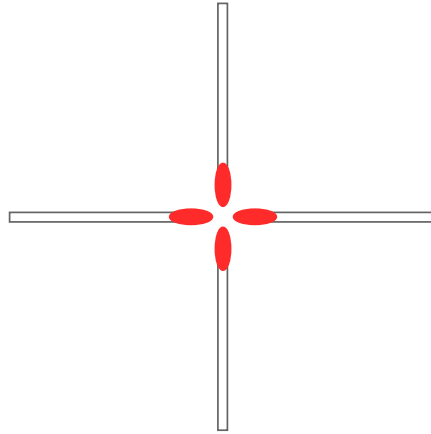
(2) A fridge door has only the magnets 1, 2, 2, 3, 3, 3, + and =. Using **all** of these magnets, create a correct mathematical equality on the fridge.

Rules & Rewards

- Any undergraduate currently enrolled at EIU is eligible to participate.

- Each solution is to be the work of one individual and is to be submitted with the solver's name, year in school, email address, local address, and home address.

- Each solution is to be written or typed and is due in the main Mathematics Department office (OM 3611) by 2:00pm, Friday, April 26, 2024.

- Entries will be judged on the basis of clarity of exposition and elegance of the solution. That is to say, the *explanation* is more important than the answer.

- An award of $50 will be given for the best solution. In the case of a two-way tie, the award will be evenly split. If there are more than two 'best' solutions, a drawing will be held for the reward. In the case no award is made for this week's challenge, $50 will be added to the next week's award.

- Names of all solvers will be posted on the Challenge of the Month bulletin board and on the Challenge homepage: `http://www.eiu.edu/math/challenge.php`