## Math Challenge Problem

for early March, 2015

## Break me off a piece of that...INDUCTION



You have a piece of chocolate made up of n small squares arranged into a rectangle. You would like to break this chocolate bar up into n squares. You can take any single piece and break it along any vertical or horizontal line. For example, the picture above is the result of starting with a  $4 \times 6$  bar and breaking three times.

The Challenge: How many times do you need to break a bar containing n squares to reduce it to single squares? Prove your answer.

Submit solutions to Ross 2239G or oscar.levin@unco.edu by Friday, March 13.

The best solution will be announced at the following Math Club (Tuesdays at 4:30) and WIN A PRIZE!

Prizes include nifty Rubik's style puzzle cubes, math puzzle books, math games, even a math coloring book. So submit your answer TODAY!