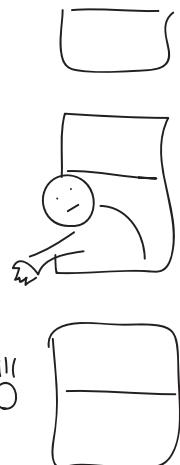


## Willamette Math Problem of the Week

### September 10 2007 Egg Drop



You live in a 36-story building, and you want to know which floors are safe to drop eggs from, and which floors will cause the eggs to break. You only have 2 eggs. You know that:

- Any egg which survives a fall can be reused.
- Any egg which breaks cannot be reused.
- If an egg breaks, it would have broken from a larger height.
- If an egg survives, it would have survived from a smaller height.
- The first floor might already be too high, or it could be that the 36th floor might still be safe.

What is the smallest number of egg-droppings that is guaranteed to work?

Submit all solutions before the appearance of the next problem to Josh Laison in person, by e-mail ([jlaison@willamette.edu](mailto:jlaison@willamette.edu)), or by carrier pigeon. The first correct solution gets a prize; all correct solutions get fame and glory. Preference for the prize goes to problem-solvers who haven't won one yet.

