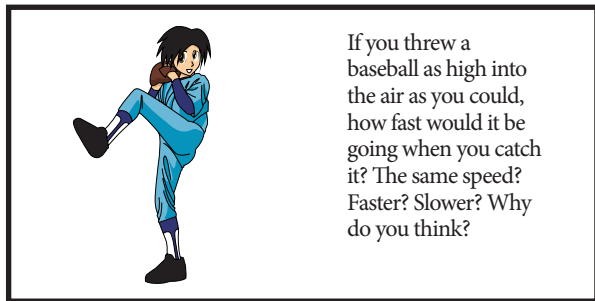


## Puzzle #86: Shot in the dark?



If you threw a baseball as high into the air as you could, how fast would it be going when you catch it? The same speed? Faster? Slower? Why do you think?

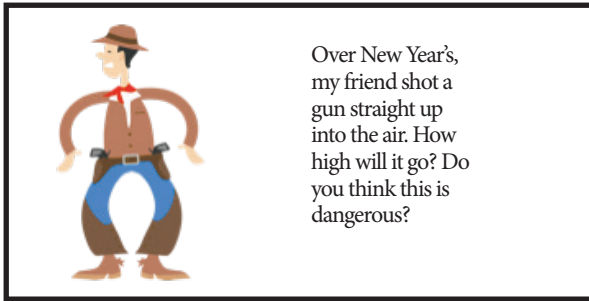
ELEMENTARY

Send any solutions by Jan. 21, 2018, to Moe Benda at mbenda@d.umn.edu.

Best solutions and next puzzle will appear in HTF on Jan. 26, 2018.

# MoeZone

Real challenges for people living in the real world



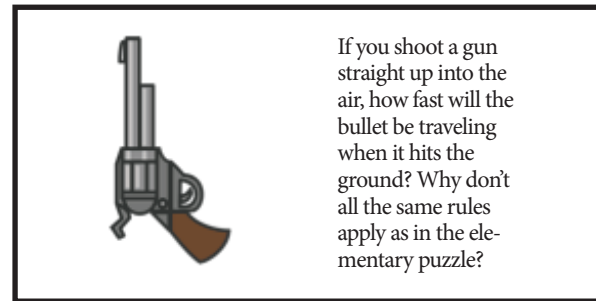
Over New Year's, my friend shot a gun straight up into the air. How high will it go? Do you think this is dangerous?

ADVANCED



Be safe!

Can you get hurt?  
Can someone else get hurt?



If you shoot a gun straight up into the air, how fast will the bullet be traveling when it hits the ground? Why don't all the same rules apply as in the elementary puzzle?

PROFESSIONAL

**Moe's quote:**

Science of sugar is sweet!

## MoeZone Puzzle #85 solutions: A good year?

### ELEMENTARY PUZZLE

*We all solve problems every day. What problem did you solve this year that made your life easier?*

Kaitlynn R. (7, Hibbing): I used my dad's new thermos that keeps soup hot like all day, and I was able to have a good hot lunch on our cold, cold days!

*Moe's note: These new thermoses are amazing! Even though we've had good ones for a long time, the new ones are great! Stay warm.*

### ADVANCED PUZZLE

*What are some problems or challenges that you are facing now for which you wish you had a solution or there were an easier way?*

Paul M. (Biwabik): Opening the trunk of my car during our coldest days; eliminating black ice; a way to make perfect wings (like at BG's); a way to look at Internet traffic so that it makes sense to me—like watching cars on a highway—so I can see if there's someone there that I don't want to have there; a way to keep so much food from spoiling in my fridge. These are just a few!

*Moe's note: Sometimes we don't even know of the problems we deal with every day—until somebody solves them for us! Have you ever found something and thought, "Why didn't I think of that?"*

### PROFESSIONAL PUZZLE

*What are the greatest inventions of 2017? What invention appreciably changed the way you live?*

I wouldn't necessarily classify it as a robot, but Amazon Echo has been amazing, as Cortana and Siri have been for my wife. These "personal assistants" help by setting appointments, giving me directions and remembering (gulp!) my anniversary! In 2017, IBM and Samsung had the most U.S. patents—about 10,000! See Apple got only about 2000 patents this year – not even in the top 10: <https://www.inc.com/minda-zetlin/facebook-is-less-innovative-than-boeing-other-surprises-from-top-us-patents-list.html>. Check out the elevator that is just like (almost) the one in Charlie and the Chocolate Factory at <http://time.com/5023212/best-inventions-of-2017/>.