

# Puzzle #77: Frick and Frack?

# MoeZone

Real challenges for people living in the real world



**Be safe!**

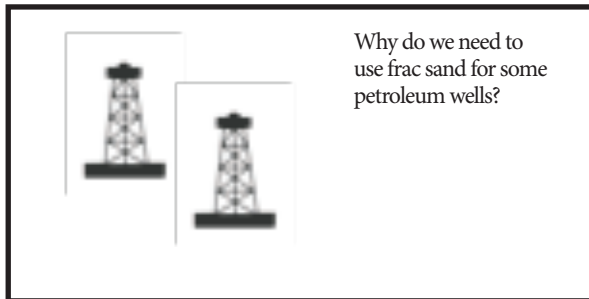
Can you get hurt?

Can someone else get hurt?



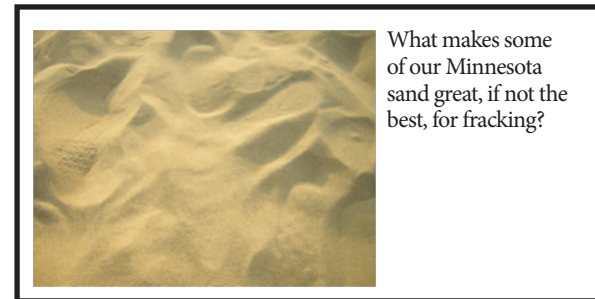
If you dropped the TV remote behind the couch, what are five different ways to get it without moving the couch?

**ELEMENTARY**



Why do we need to use frac sand for some petroleum wells?

**ADVANCED**



What makes some of our Minnesota sand great, if not the best, for fracking?

**PROFESSIONAL**

Send any solutions by Sept. 3 to Moe Benda at mbenda@d.umn.edu.

Best solutions and next puzzle will appear in HTF on Sept. 8.

**Moe's quote:**

A soft answer turns away anger.

## MoeZone Puzzle #76 solutions: Far out!

### ELEMENTARY PUZZLE

*Which way is heaven?*

MaryAnn (5, Palo): Up!

**MOE'S NOTE:** *Living in northern Minnesota isn't heaven? It sure seems like it!! My friend Agner wonders, "If you are in space, there is no up or down. Where is it then?"*

### ADVANCED PUZZLE

*How many galaxies do you know of?  
How many have we discovered?*

**MOE'S NOTE:** *One of my favorite unanswerable questions: Describe the Universe and give two examples. But, to the question—no one wanted to tackle this one, so I looked to NASA. They cited a study taken from the Hubble Deep Space Probe. They thought there were only (ONLY) 200 billion galaxies, but now think that may not be enough and are estimating 2 trillion!!! Wow!*

### PROFESSIONAL PUZZLE

*If you took off in the fastest spaceship, even traveling at or near the speed of light, how long would it take to fly to the nearest star past the sun?*

Well, it is 25 trillion miles away and traveling at the speed of light—which is 186,000 miles per SECOND—it would take almost five years. Did you know some Russians are working on sending a space probe to our closest star, planning on it taking 20 years to get there? They say the probe is about the size of a cell phone. That's one long distance call!!!

Can we travel near the speed of light? Einstein only hypothesized that nothing can travel faster than the speed of light. Some scientists believe the universe has some examples of phenomena faster. What do you think?

**MOE'S NOTE:** *Thanks to both Agner and Goeretsky for these questions – and some of the answers!*