

Puzzle #89: Weather or not!

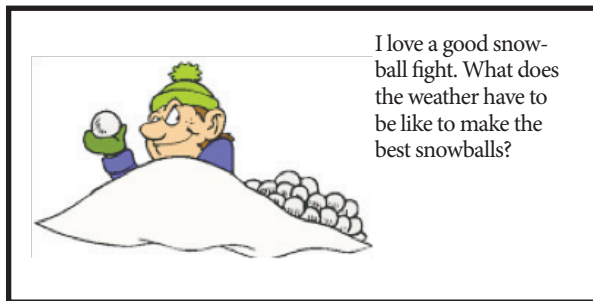
MoeZone

Real challenges for people living in the real world



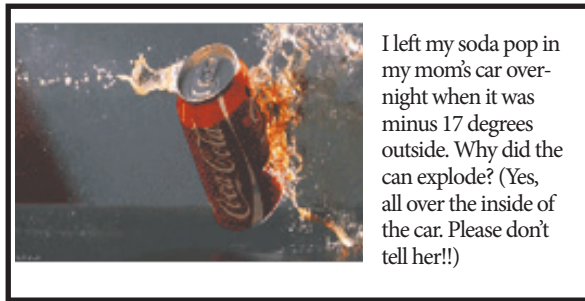
Be safe!

Can you get hurt?
Can someone else get hurt?



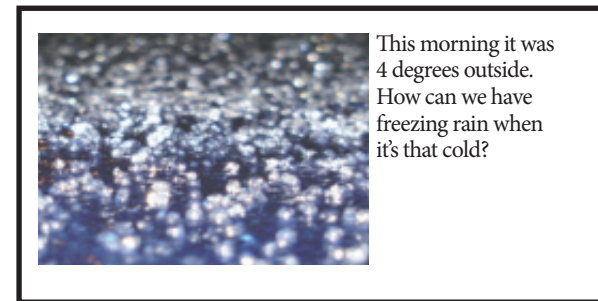
I love a good snowball fight. What does the weather have to be like to make the best snowballs?

ELEMENTARY



I left my soda pop in my mom's car overnight when it was minus 17 degrees outside. Why did the can explode? (Yes, all over the inside of the car. Please don't tell her!!)

ADVANCED



This morning it was 4 degrees outside. How can we have freezing rain when it's that cold?

PROFESSIONAL

Send any solutions by March 4, 2018, to Moe Benda at mbenda@d.umn.edu.
Best solutions and next puzzle will appear in HTF on March 9, 2018.

Moe's quote:
Some games can't be won, only played.

MoeZone Puzzle #88 solutions: Shop talk!

ELEMENTARY PUZZLE

Go to your favorite store and see if you can estimate how many different items are in the store. Do you think your number is exact or how close to the real number is your estimate?

Mona (Virginia): Wow! I never really thought how many things are in the store; I'm only looking for a few things when I go. This made me stop and look around. I would say there must be close to a million different things in Target!

Moe's note: *That's a huge number!! How close do you think that is to the real number? Within 1,000 or 10,000?*

ADVANCED PUZZLE

I was in Target the other day and wondered how much money they have in inventory just in the shampoo aisle. Make an estimate of how much you think is there!

The shampoo aisle is a fun one to walk down. I did a quick count of rows and then counted the number of bottles across that row—each was about five bottles deep. Six rows with 70 bottles across and five deep each costing about \$8 each give or take a bit: \$16,800 on each side!

Moe's note: *That is a lot of shampoo!*

PROFESSIONAL PUZZLE

Estimate the total inventory value on the shelves at your favorite store. How did you come up with your number? How close do you think you are to the true value?

I went into ACE hardware and looked around. It's difficult because there are so many sections that have different items in them—from chainsaws to chewing gum. So I built a quick process to answer this. I figured that the more expensive stuff was bigger, so there would be fewer of them and the smaller item would be cheaper so more could fit in the same area. I walked down one row and used my steps to find that each row was about 50 feet. I didn't think this had to be exact because of how approximate my other numbers would be. Then I estimated how much there was per foot of average-costing stuff. From a quick look, I estimated \$300 per foot. At 10 rows 50 feet long: \$150,000. If my number was too small—at \$400/foot it would be \$200,000; and at \$200/foot it would be \$100,000. So I'm pretty confident that between \$100K and \$200K is in inventory!

Moe's note: *Estimations can be quite useful. Sometimes we don't need the exact number which takes a lot of work! Just ask anyone who has to count all of that stuff!*