Puzzle #73: Colors!

MoeZone

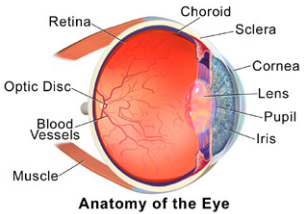
Real challenges for people living in the real world

Be safe!

Can you get hurt?
Can someone else get hurt?

Artists like to blend primary colors to make new and interesting colors. How many primary colors are there and how many different color blends can you make?

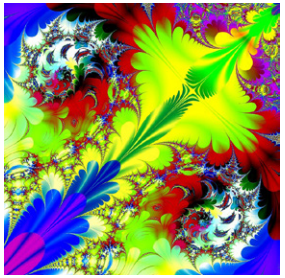
ELEMENTARY



Anatomy of the Eye

What part of our eyes enables us to see colors? What makes some people color blind?

ADVANCED



Recent research has shown that some of us have more [advanced puzzle answer]. Can those of us who do see more colors than others?

PROFESSIONAL

Send any solutions by July 9 to Moe Benda at mbenda@d.umn.edu.
Best solutions and next puzzle will appear in HTF on July 14.

Moe's quote:
If you don't know where you're going, any road will lead you there.

MoeZone Puzzle #72 solutions: It takes sand!

ELEMENTARY PUZZLE

Is sand dirty? I put some sand from the beach into a cup and rinsed it and the water got really cloudy. Can you keep rinsing it until it is only "clean" sand? What's left?

Dana (Lakeland): Some sand is really dirty and some sand isn't so bad. I rinsed the sand from Lake Ore-Be-Gone five times before the water didn't get cloudy any more. I was left with clean sand, but it really looked like tiny little rocks.

ADVANCED PUZZLE

My friend has a cleaning pool filter that she calls a sand filter. What holds the sand in place so that it doesn't flow out into the pool?

Dana: After trying the elementary puzzle, where I had to hold my hand over the cup and allow the water to drain out, I assumed that a pool filter has the same thing—dirty water flows in the top and the sand grabs the dirt and cleans the water. At the bottom of the filter, there must be a mesh or some sort of fabric holding the sand in but allowing the water to pass through.

MOE'S NOTE: Exactly right Dana! If you have other pool questions, Ask-ThePoolGuy.com!

PROFESSIONAL PUZZLE

How does a fluidized bed filtration system work? Where are they used?

A fluidized bed system uses fluid flow to counteract gravity and buoyancy to allow the 'bed' to float, but not fast enough to push the beads or media out of the system. This creates more surface area for the dirty material to be cleaned.