IT'S OLNEY MATH

– Greg Coxson

On a given Sunday, one side of the Olney Farmers Market is populated by a certain foursome of vendors. They offer four different types of products, allow four different types of payment, and have tents in four different colors. Visualize these four tents, from left-most to right-most, satisfying the following set of rules:

1. The coffee vendor is some number of tents left of the grey tent.

2. The vendor selling wood carvings is right next to, and between, the white tent and the tent that takes bitcoin for payment.

3. The vendor selling wood carvings is not in the hot pink tent.

4. The hot pink tent is somewhere to the right of the vegetable vendor.

5. The grey tent is next to and between the vegetable seller and the vendor who takes payment by Venmo.

6. The wood carving vendor is not right next to the hot pink tent.

7. The coffee seller is not next to and to the left of the vendor who uses a cube to take debit card payments.

So, **who sells the cumquats?** (For your answer, give both the tent color and the method of payment for this vendor).

The first 5th-to-12th grader to submit the correct answer will receive a valuable prize.

This is an example of a Logic Puzzle. These types of puzzles were introduced by Lewis Carroll (who wrote *Alice in Wonderland*), in the late nineteenth century. As James Madison University Math prof Jason Rosenhouse writes in his recent book entitled *Games for Your Mind*, "Reasoning is fun! There are few things as satisfying as encountering opacity and, by applying nothing more formidable than the power of your mind, replacing it with clarity." There is actually a branch of Mathematics called Logic, a fun, useful, and challenging area of study.