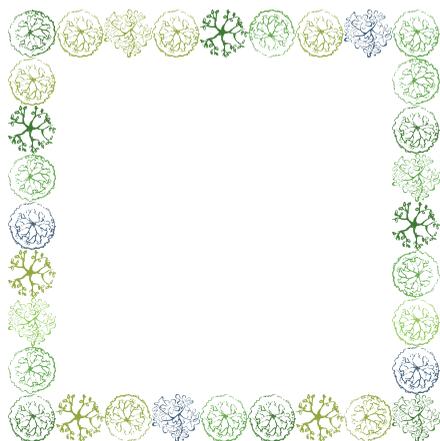


## Dividing the 80 Acre Potato Farm

After several decades of “doing it their way” on a very productive potato farm in Melancthon Township, Vince and Rose ran up against government regulations. Their plan was to sever a lot from one corner of the property (the farm was a perfect square) and build a retirement home on it for themselves. The remainder of the property they would then divide into five plots for their five daughters to grow potatoes or engage in other agricultural endeavours.



Upon applying for the necessary permissions from municipal and provincial governments, Vince and Rose learned a severed lot for their retirement home had to be entirely inside the property. It could not touch any outer border of the farm. Further, each of the five subsequent divisions of the farm for their daughters had to be identical in area and in shape.

*Design a layout that will satisfy the government stipulations and at the same time, divide up the entire farm giving Vince and Rose a severed lot and each daughter her own subplot.*

## A Chess Set for PAMA?

AN IN THE HILLS  
MINI MYSTERY

The set was magnificent, no doubt about that. And in mint condition. Except for one of the bishops missing a tiny piece of his mitre, and a black pawn – each pawn was a different craftsman – holding what appeared to be a broken crosscut saw, all the figures were intact. They were exquisite too, carved from black jade and ivory. The kings especially were outstanding, their importance accentuated by tiny but fiery opals inset on their robes. Even the chessboard with faint Arabic script running along the outer edges, was in a class by itself. According to the agent, the set dated from the late 11th century, and had been brought to Europe during the Crusades.

“Magnificent indeed,” agreed Diane Allengame, “but way out of our league. In fact, PAMA wouldn’t even have contemplated bidding on this set were it not for the Perkins Bull connection.”

The agent had approached PAMA with a tantalizing claim that the set had once been owned by William Perkins Bull, a point that quickly got PAMA’s attention and explained why Diane, as regional archivist, was more than pleased to investigate. As she later acknowledged, the venture was thrilling for her, but at the same time, short-lived. It took her no time at all to realize Perkins Bull would never have acquired such a rare artifact if it was not authentic.

*How did Diane know the chess set was not what the agent claimed?*



## The Girls at the Party

All the way from Grand Valley to Alton, little Michael talked excitedly about the birthday party he’d just attended but had difficulty getting some details straight. He did remember there were five girls at the party besides the boys, but most of what he remembered about the girls was colours. He knew that a girl named Berney wore a red dress and Elaine wore a blue one. He knew that Moira did not wear a yellow sweater, but he was sure the girl who did wear that yellow sweater was a partner with Berney in a game they played against Sanja and the girl in green. As he was being tucked into bed that night, Michael commented that he liked the girl with the brown overalls best.

*Who did Michael like best?  
And what colour did Jacqui wear?*



## A Digital Clock in Shelburne

Through the window of a clothing store on Shelburne’s main street, Eddie could see a digital clock reading 3:33. It occurred to him that one hour and eleven minutes ago, that same clock had read 2:22, and in one hour and eleven minutes from now, it will read 4:44. Interesting, he thought, because in one hour and eleven minutes after *that*, it will read 5:55 but strangely, after still one more round of one hour and eleven minutes, it will read 7:06.

“I wonder,” Eddie said out loud, “how many minutes will pass after 5:55 before the clock will again show three identical numbers in a row? And come to think of it, how many times in a 24-hour period does a digital clock present the same three numbers in a row?” *Help Eddie.*



## A Slip-up at the Jolly Morphology Club?

At the former tavern near Mono Mills which had so successfully converted itself to a word game club during the “dry days” of Prohibition in early 20<sup>th</sup> century Ontario, a new vocabulary challenge drew some unwanted attention from inspectors. Outlined on the chalkboard that hung on the wall behind the bar – former bar – were the names of items used in the brewing, distilling and wine-making industries at the time. These items were used for measuring, serving or storing liquid, and patrons found their names intriguing, if a bit arcane. (Inspectors, because of the association with beer, wine and liquor were not as amused.) As a patron, in how many challenges below would you have chosen correctly? *In each group of three that follows, which item will hold the largest quantity of liquid?*



1 magnum  
quart bottle  
pottle

2 firkin  
gallon jug  
butt

3 barrel  
hogshead  
magnum

4 tun  
firkin  
pint bottle

5 gill  
teaspoon  
tablespoon