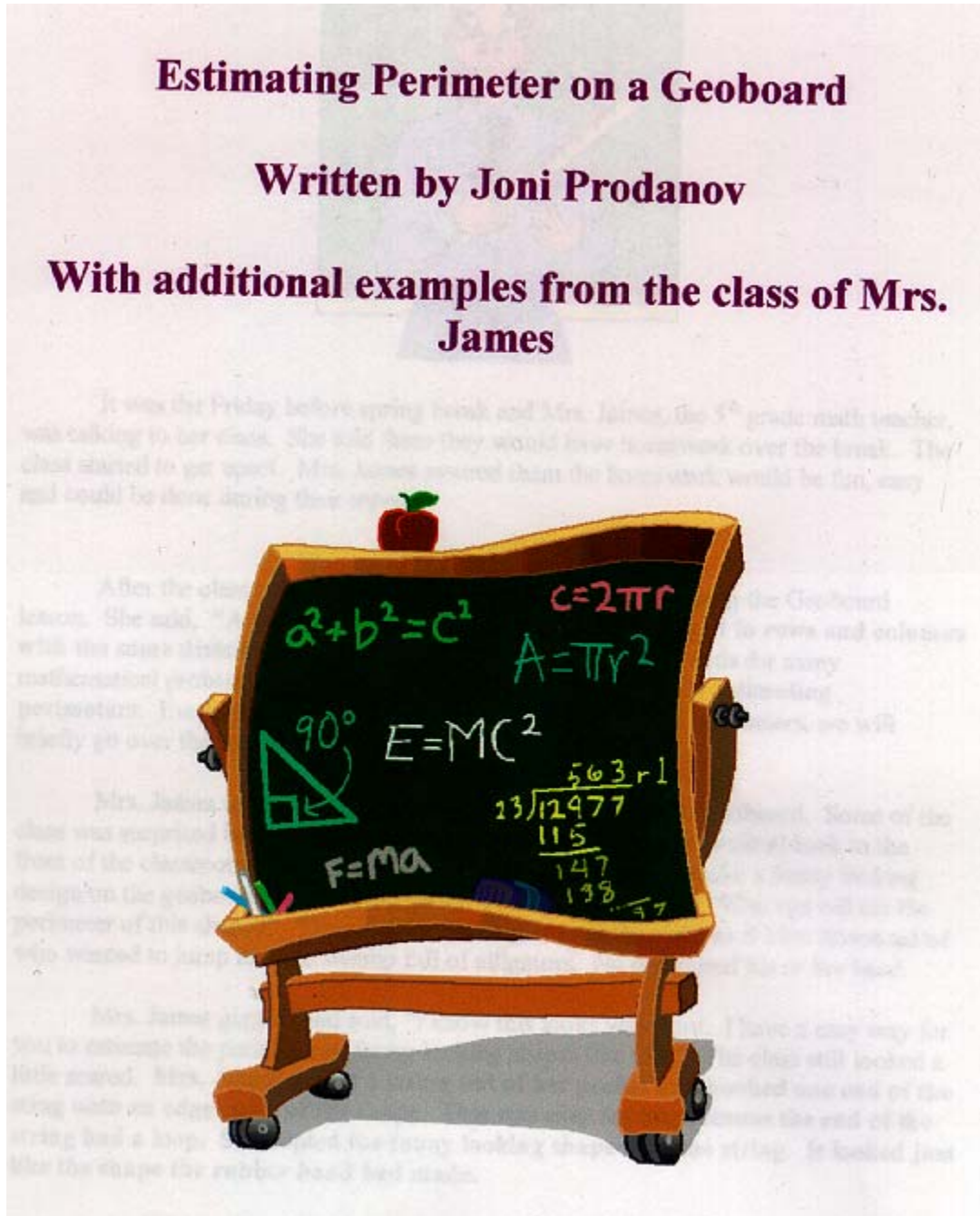


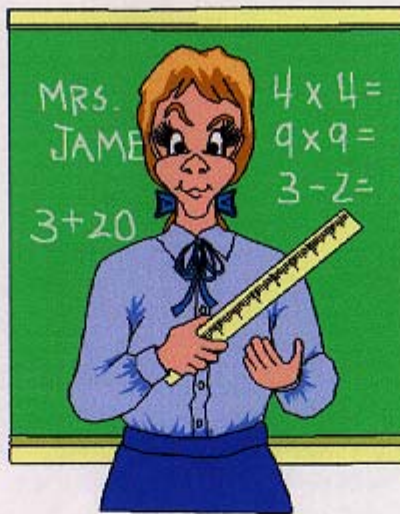
Project: Joni Prodanov

Estimating Perimeter on a Geoboard

Written by Joni Prodanov

With additional examples from the class of Mrs. James





It was the Friday before spring break and Mrs. James, the 5th grade math teacher, was talking to her class. She told them they would have homework over the break. The class started to get upset. Mrs. James assured them the homework would be fun, easy and could be done during their travels.

After the class calmed down, Mrs. James went on explaining the Geoboard lesson. She said, “A geoboard is a board with nails sticking out in rows and columns with the same distance between each nail. We will use geoboards for many mathematical problems, but for now we are going to use them for **estimating perimeters**. Even though we have talked about the meaning of perimeters, we will briefly go over the meaning again.”

Mrs. James walked to her desk and pulled out a big black geoboard. Some of the class was surprised because they had never seen a geoboard. She walked back to the front of the classroom and held up the geoboard. She started to make a funny looking design on the geoboard with a rubber band. She asked the class, “Who can tell me the perimeter of this shape?” The class sat, looking around the room as if Mrs. James asked who wanted to jump into the swamp full of alligators. No one raised his or her hand.

Mrs. James giggled and said, “I know this looks very hard. I have a easy way for you to estimate the perimeter of funny looking shapes like this.” The class still looked a little scared. **Mrs. James pulled a string out of her pocket and hooked one end of the sting onto an edge point of the shape. This was easy for her because the end of the string had a loop. She copied the funny looking shape with the string. It looked just like the shape the rubber band had made.**



She looked at the class and said, “Don’t forget to mark the end of the string with your finger. If you don’t you will have to start all over with the string.”

Next, Mrs. James took the string off the geoboard. She held it up in front of the class. “This is the perimeter of the shape. Now watch this.” She said. She hooked the string back on to a nail. This time it was a corner nail. She wrapped the string all the way around the edge nails and held the geoboard up. “Who can help me count the square units of the string?” Everyone raised his or her hand. “One-two-three-four-five-six-seven-eight and a half.” Eight and a half is the perimeter of this funny looking shape. The class started to clap and cheer.



“It wasn’t hard at all, now was it?” said, Mrs. James. “Now for your homework, I want you to look around outside and find objects which you can estimate the perimeter of. Draw them on a piece of graph paper. Write down what it is and where you found it. The students with the largest, smallest and weirdest objects will get a prize. Have fun!”



“Now I want you to look at some examples from last year’s class.” The class started to rumble as the students talked about what they thought they might find. The room was filled with excitement.

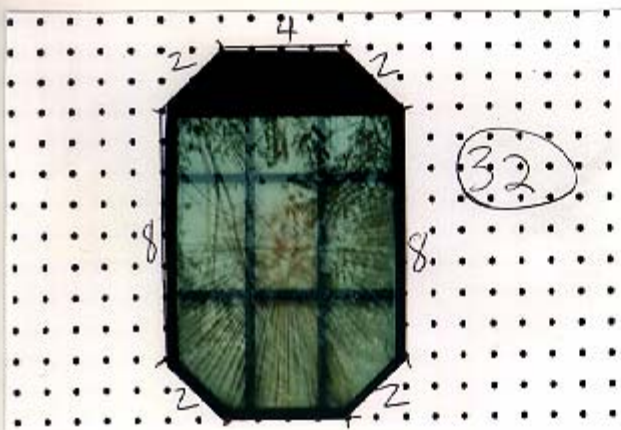


Scott R.

Estimating Perimeter
 Found in Stillwater, OK
 It is a window

32

Great Scott!
 11 10/10
 ☺



next time
 try to group
 these number
 the multiply.
 then add!

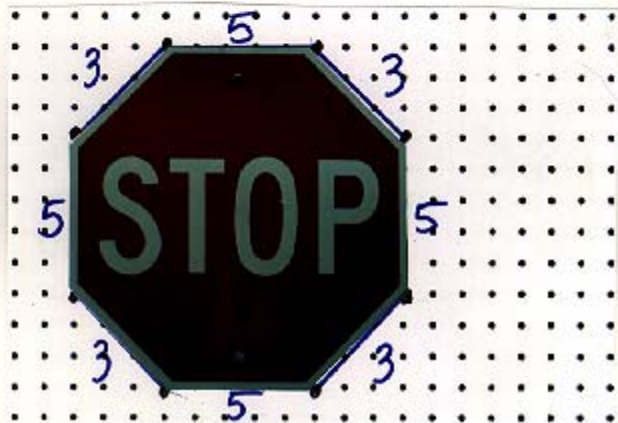
$$\begin{array}{r}
 4 \times 2 = 8 \\
 2 \times 4 = 8 \\
 8 \times 2 = 16 \\
 \hline
 8 \\
 + 8 \\
 + 16 \\
 \hline
 32
 \end{array}$$

Amy B.



$$\frac{10}{10}$$

Estimating Perimeter on a Geoboard
32
found in Princeton, New Jersey



$$\begin{array}{r} 5 \quad 3 \\ +5 \quad 3 \\ \hline 5 \quad 3 \\ +5 \quad 3 \\ \hline 20 + 12 = 32 \end{array}$$

Great job
Amy!
(1)