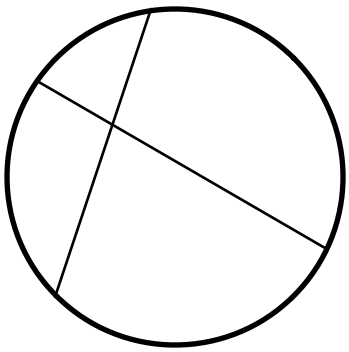
Cayuga Heights 4th Grade Math Club
Problems for November 14, 2019

1. The following diagram shows how to cut a pie into 4 pieces with 2 straight cuts. What is the largest number of pieces it can be cut into with 3 straight cuts?

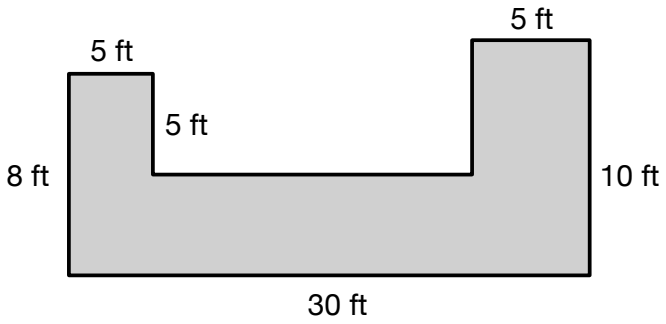


2. Olivia is building a fence to enclose her garden. Her garden is a rectangle exactly twice as long as it is wide, and it takes 42 feet of fence to enclose it. What is the length of the garden?

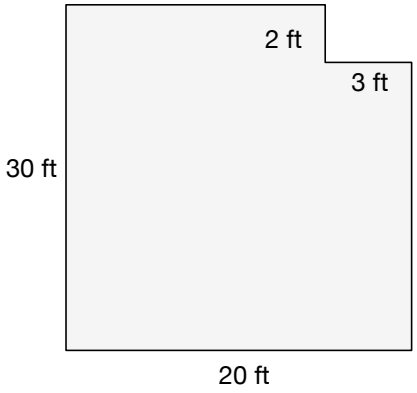
3. Alex wants to build a rectangular garden too, but she only has 36 feet of fence to use. What is the area in square feet of the largest garden she can build?

4. The *perimeter* of a shape is the length of the path that encloses it. If the area and the perimeter of a square are equal, what is the length of the side of the square?

5. Sam is building a miniature golf course. One part of the course is laid out in the following shape. How many square feet of artificial turf does he need to cover this shape?



How many square feet would he need for *this* shape?



6. Pavan uses one full bucket of paint to paint a square that is 10 meters on a side. How many buckets of paint will he need to paint a square that is 30 meters on a side? How about if it is 50 meters on a side?

7. A four-digit number is written on a piece of paper. Oren spills juice on it and two of the digits are no longer readable; all he can see is 86??. Fortunately, he remembers that the number was divisible by 3, by 4, and by 5, so he can figure out what the erased digits ?? were. What was the four-digit number?