CORNY Math (and some science, too)

Grab an ear of corn and do some corny math!

1. Choose a spot on your ear of corn where the rows are fairly straight and even. How many rows of kernels are there? _____ rows
2. Was the number of rows even or odd?[1] (circle one) EVEN ODD
3. Now count how many kernels are in one row.[2] How many are there? _____ kernels
4. Now do the math to determine about how many kernels are on the ear. _____ kernels

Corny Science

[1] During early ear formation, kernel rows begin as ridges of cells that divide into pairs. Thus, ears of corn always have an even number of rows. The number of kernel rows is determined largely by plant genetics, so ears from the same variety will generally have the same number of rows.

[2] The number of kernels in each row (and the ear overall) is influenced by weathe , insect damage, diseases, and availability of plant nutrients. By inspecting ears of corn in their fields throughout the growing season and making calculation like the ones above, farmers can make estimates of what their final yield (amount harvested per acre) will be

Use the information provided in the box to solve the problems that follow.

- Field corn usually produces one ear per stalk. Each ear has an average of 600 kernels.
- The average number of corn plants per acre is 34,000. (An acre is about the size of a football field.
- A standard bag of seed corn contains 80,000 kernels and costs $360.
- Harvested corn is measured by weight. A bushel of corn weighs 56 pounds.
- In DeKalb County, the average corn yield is about 190 bushels per acre.

5. About how many kernels are produced in one acre of corn? _____ kernels
6. How many pounds of corn are produced in one acre? _____ lbs.
7. How many acres can one bag of seed be used to plant? _____ acres
8. What is the cost of seed per acre? $_____

Bonus question: A single row of corn would have to be 17,424 feet long to be equivalent to 1 acre. If all 240,000 acres of corn planted in DeKalb County were planted in a single row, how many times would that row circle Earth at the equator? _____ times