



Activity III: Calculations from the Farm

Student Activity Worksheet

Calculations from the Farm

How big is an acre?

An old unit of measure is the rod. A rod is $16 \frac{1}{2}$ feet long. A square rod is a square plot of ground $16 \frac{1}{2}$ feet on a side. An acre is 160 square rods.

Questions

1. How many square feet are in one acre?
2. Calculate the area of your classroom. How many classrooms would it take to make an acre?
3. A football field is 160 feet wide and 100 yards from goal line to goal line. How does this area compare to an acre?
4. If the acre field was a square, what would its dimensions be?
5. If an acre field was 1 rod ($16 \frac{1}{2}$ feet) wide how long would it be? What part of a mile

It is common these days for farmers to have fields of 120 acres.

6. What are some possible dimensions for a 120 acre field?
7. If the 120 acre field was square, what would its dimensions be?

When planting corn, it is common for the rows to be 30 inches apart and the goal is to have a corn stalk about every 4 inches.

8. Suppose you have an acre of field and plant rows that are 30 inches apart. What is the combined length of all the rows in the acre field?

9. If seeds are planted every 4 inches, how many seeds are needed for an acre field?
How many seeds are needed to plant a 120 acre field?

10. In the fall, the farmer hopes to be able to harvest about 175 bushels per acre. A bushel of corn weighs about 56 lb. How much would the corn from a 120 acre field weigh?