

Farming is Expensive

Grade Level: 4-5

Approximate Length of Activity: One Class Period

Objectives

Teacher

1. Provide math computation practice.
2. Provide information on expenses in managing a farming business.

Students

1. Practice math computations by solving problems related to farming expenses.
2. Gain knowledge of farm expenses.

Michigan Content Standards: (Math) N.FL.04.10; N.FL.04.11; N.MR.04.13; N.MR.04.14; N.MR.05.03; N.FL.05.04; N.FL.05.05; N.FL.05.06

Introduction

Operating a farm is a multi-faceted business. Like any business, farmers must purchase supplies and sell products. Farmers need a good understanding of agribusiness and economics to make a profit. They work with many individuals and companies to supply the needs of their farm and sell their products. Farmers must know how to keep an organized budget, compare prices, and make wise financial decisions.

Farmers use math in many of their day-to-day operations. For example, they use it to determine the amount of seed they need to plant their crop and how much it will cost. They also use math to purchase equipment and make payments. Math is important for determining taxes and insurance. It also helps farmers keep track of how much their livestock weighs, how much milk their cows produce, their crop yields per acre, etc.

Students can learn that there is much more involved in farming than simply raising a few animals or planting some crops. By reading and completing the following story problems, teachers can reinforce basic math operations while at the same time show students some examples of how math is used in the "real world."

Materials Needed

- "Farming Makes Sense" worksheet

Activity Outline

1. Review the information from the introduction.
2. Hand out the worksheet “Farming Makes Sense,” and have students calculate the answers.
3. Review the answers and have students explain their work.
4. Have the students write their own story problems that involve farm equipment and expenses. Utilize farm ads to find out the cost of machinery.
5. Students can exchange their story problems with a partner. Have them solve their partner’s story problems.

Discussion Questions

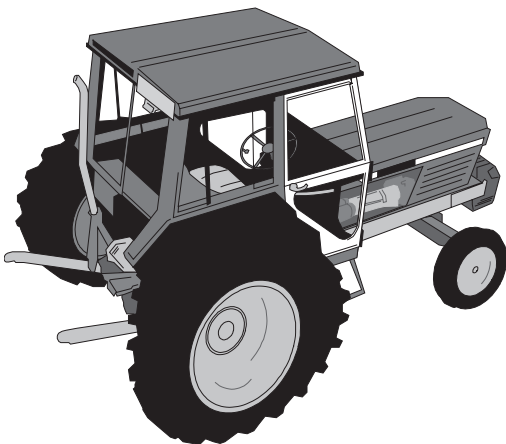
1. What is an expensive piece of equipment that farmers need? (tractor)
2. If a tractor costs \$80,000 and a computer costs \$1,600, how many computers could you buy for the price of one tractor?
3. What did you learn about farming that surprised you or you did not know before?

Related Activities

1. Have students’ research different types of farm equipment.
2. Compare past years’ farm equipment prices to today’s farm equipment prices.
3. Invite a farm equipment dealer or farmer to visit your class. Contact your county Farm Bureau for referrals.
4. The lesson “Foods Amazing Journey” located in the social studies section of this curriculum guide.

Farming Makes Sense

1. John is going to plant 20 acres of corn, but first he needs to buy seed. If John needs one bag of seed corn to plant three acres, how many bags does he need to plant all 20 acres?
2. Insects are hurting Bill's corn crop. Bill must apply crop protection products if he plans to harvest any crop. He needs 10 one-quart packages of chemicals for his 160 acres. Each package costs \$50. What will his total cost be?
3. Sarah needs more feed for her cattle. She needs to buy 150 bushels of corn. One bushel costs \$1.91. How much will 150 bushels cost?
4. Jill rents 100 acres of land to grow soybeans. It costs \$97 to rent just one acre. What is the total rent for 100 acres?
5. It takes 8,000 gallons of diesel fuel to run the equipment on Phil's 1,000-acre farm. What is the total cost of the fuel if one gallon costs \$1.23?



Farming Makes Sense

1. John is going to plant 20 acres of corn, but first he needs to buy seed. If he needs one bag of seed corn to plant three acres, how many bags does he need to plant all 20 acres?
7 bags
2. Insects are hurting Bill's corn crop. He must apply crop protection products if he plans to harvest any crop. He needs 10 one-quart packages of chemicals for his 160 acres. Each package costs \$50. What will his total cost be?
\$500
3. Sarah needs more feed for her cattle. She needs to buy 150 bushels of corn. One bushel costs \$1.91. How much will 150 bushels cost?
\$286.50
4. Jill rents 100 acres of land to grow soybeans. It costs \$97 to rent just one acre. What is the total rent for 100 acres?
\$9,700
5. It takes 8,000 gallons of diesel fuel to run the equipment on Phil's 1,000-acre farm. What is the total cost of the fuel if one gallon costs \$1.23?
\$9,840