

A Lending Hand

Objective

Students will read a story about Adam and how he earned money to buy a skateboard by selling vegetables he sold at the farmer’s market. Students will learn how farmers finance their operations through the farm credit system.

Background

Farmers use land, water and sunshine to produce the food we eat and the raw materials for making clothes and many other things we need. In economic terms, the land, water and sunshine are natural resources. The farmer’s work is a service. The food, clothing and other materials are called “goods.”

Farmers sell their goods to get money. Much of the money has to be used to buy what is needed to produce the goods. Grain farmers need large amounts of money for seed and other inputs. Cattle stocker operations need money to buy calves and to buy feed during their growth cycle. Produce growers have expenses throughout the growing season. Since they have to wait for the crops and animals to grow before they can sell them, farmers sometimes need to borrow money to get started. This is called credit.

In the US, the Farm Credit System (FCS) loans money to farmers to meet this need. The FCS is a financial cooperative—a nationwide network of lending institutions that are owned by their borrowers. It is the largest agricultural lender in the US.

A line of credit is a short-term farm loan, but one that the borrower doesn’t receive in a lump sum. Instead, withdrawals and payments can be made throughout the year. Once the line of credit is approved, the money is available for use and the borrower doesn’t need to have any further conversations or approvals to use the funds. The funds may be deposited into a checking account, or the farmer may write drafts against the line of credit as needed. There are typically no limits to how many times the funds are accessed, or how much is drawn out at any one time.

Lines of credit for production agriculture are typically tied to a particular farming or ranching activity and the value of the crop or product that’s being produced. For example, a line of credit taken out to cover crop input expenses is expected to be paid back from the sale of that crop. Anything remaining after debt repayment is considered profit.

Language Arts

1. Read and discuss background and vocabulary.
2. Provide students with copies of the Reading Page, “A Skateboard for Adam,” included with this lesson.
—Students will read the story and answer the comprehension questions.
3. Adam and his father used OSU Cooperative Extension System Fact Sheets to research the vegetables they wanted to grow. Students will

Oklahoma Academic Standards

GRADE 6

Speaking and Listening: R.1,3.
Reading and Writing Process:
R.1,2,3. Critical Reading and
Writing: R.3; W.2. Vocabulary:
R.1,3,5

Numbers & Operations:
1.3,4; 2.1,3; 3.1,2,3,4; 4.1,4.
Geometry: 1.1; 3.1,2. Data &
Probability: 1.1,2 . Research:
R.3; W.1

GRADE 7

Speaking and Listening: R.1,3.
Reading and Writing Process:
R.1,2,3. Critical Reading and
Writing: R.3; W.2, Vocabulary:
R.1,3,5. Research: R.3; W.1

Numbers & Operations:
2.3,5. Geometry: 2.2. Data &
Probability: 1.1

Additional Online Resources

Farm Credit: <http://www.farmcreditnetwork.com/>

National Livestock Credit:
<https://www.nationallivestock.com/>

Oklahoma Council on
Economic Education: <http://econisok.org/>

OSU Extension Fact Sheets:
Lawn, Yard & Garden:
<http://pods.dasnr.okstate.edu/docushare/dsweb/View/Collection-389>

Vocabulary

capital— accumulated wealth especially as used to produce more wealth

collateral— property (as stocks, bonds, or a mortgage) pledged as security for a loan

compensation—the act of to making equal return to; pay

cooperative— an association owned by and operated for the benefit of those using its services

credit— trust given to a customer for future payment for goods purchased

draft— an order (as a check) issued by one party to another (as a bank) to pay money to a third party

harvest— the quantity of a crop gathered in a single season

investment— a sum of money laid out so as to return a profit

market— a meeting together of people to buy and sell

mulch— a covering (as of straw or sawdust) spread over the ground to protect the roots of plants from heat, cold, or evaporation, prevent soil loss, control weeds, enrich the soil, or keep fruit (as strawberries) clean

nutrient— something that provides nourishment

produce— fresh fruits and vegetables

profit— the gain after all the expenses are subtracted from the amount received

reward— something (as money) given or offered in return for a service

risk— possibility of loss or injury

till— to work by plowing, sowing, and raising crops on or in

use the Extension website to research vegetables that can be grown in Oklahoma and write short reports to present to the class.

Math

1. Students will work in groups and brainstorm to determine what materials Adam (from the story “A Skateboard for Adam,” included with this lesson) will need to buy to get his garden started. Students will research, using gardening books or websites to get more information.
 - Students will determine the cost of the items by looking at garden store advertisements or online catalogues.
 - Students will calculate to determine Adam’s likely expenses.
 - Students will add 1.5 percent interest to determine the total amount Adam owes his dad for the materials to get the garden started.
2. Provide copies of the math problems related to the story. Students will solve the problems as appropriate to their level of learning and show their work.

Extra Reading

Bernstein, Daryl, *Better Than a Lemonade Stand: Small Business Ideas for Kids, Aladdin/Beyond Words*, 2012

Madson, Debbie, *Money Making Ideas for Kids and Teens: Starting Your Own Business—A Guide for Teen Entrepreneurs (Kids and Money Series Book 2)*, CreateSpace Independent, 2014.

Parks, Carmen, *Farmers Market*, Sandpiper, 2003.

Rendon, Marcie R., and Cheryl Walsh Bellville, *Farmer’s Market: Families Working Together*, Carolrhoda, 2001.

Tyler, Marya Washington, *On-the-Job Math Mysteries: Real-Life Math From Exciting Careers*, Prufrock, 2008.

A New Skateboard for Adam

For nearly a month, Adam had walked by the same store window, and for nearly a month, Adam had admired the cool skateboard and pads that were on display. Every day Adam tried to think of how he could make that board his own. Summer vacation was only a few months away, and the warm spring day made Adam think of how badly he wanted that skateboard. Then Adam had an idea. He would ask his parents to buy the skateboard for him. He knew they would probably say “no,” but it was worth a try.

That night at dinner, he ate everything on his plate, even the stuff he didn’t like. He sat there until everyone was nearly finished. Then he decided it was time to give it his best shot.

“Dad,” Adam began, “Have you seen the new skateboard in the window of Mr. Jacob’s store?”

“No,” his dad responded.

“Well, Dad, It’s really cool! It’s black and silver and there are even matching pads to go with it,” Adam continued.

“That’s nice,” Dad said.

Adam saw the conversation was falling apart, so he decided to just ask for the skateboard. After all, he wanted it, and he couldn’t buy it himself.

“Dad,” Adam said, “I sure would like to have that skateboard.”

Before he could finish, his dad said, “Well, Adam, I guess you are getting old enough to work and save your money to buy the skateboard if you really want it.”

Adam was outraged. “Great, Dad, but how am I supposed to do that? Who is going to give me a job? I’m 12 years old. I’ll bet I’m the only kid in the class whose dad wants him to get a job,” he fumed.

“I’ll tell you what, Adam. You think about how badly you want that skateboard. If you want it that much, you will give my suggestion some consideration.” Dad excused himself from the dinner table.

“Mom,” Adam pleaded, “Tell him to buy me the skateboard. I am probably the only kid in the class who doesn’t have a decent board.”

“Well, Son,” his mom replied (‘Not another speech!’ Adam thought as she began.) “you could surely do something to earn money. You could mow lawns. Summer is not far off and there will be plenty of grass to mow.”

“I hate mowing grass,” Adam whined. “I already have to mow our own yard. I sure don’t want to mow yards for other people.”

“Well, here’s another idea,” his mother said. “There is talk of a new farmer’s market at the mall this summer. What if you help in the garden then take some of the produce to the market to sell and use your profits to buy the skateboard?”

Adam liked that idea better. He liked growing things, and sitting at a table selling fresh vegetables would be a lot easier than pushing a lawn mower around all summer.

That night, Adam thought about what his mother had suggested. The idea of selling produce at the farmer’s market sounded good, but he didn’t know what to sell. Besides, there would still be a lot of work. His parents would definitely make him help. There would be planting, weeding, mulching and harvesting. Then the produce would have to be washed and loaded up to take to market.

“What if people don’t buy the vegetables, or what if other vendors sell their produce for less?” Adam wondered.

The next day Adam passed by the window once more. He had to have that skateboard! The work and risk would be worth the reward. Adam had visions of all the tricks he could master on the board and how cool it would be to cruise with his buddies.

Adam decided to give the after-dinner talk another shot. This time he had a better plan. If he had to wait until he sold enough produce before he could buy the skateboard, he might not be able to get it until the summer was almost over. He decided he would ask for a loan. He would ask his parents to loan him the money. Then he would pay it back with his farmer’s market sales.

That evening after dinner he hit his dad with his plan.

“I will help in the garden and take some of the vegetables to the farmer’s market to sell. With that money I will pay you back for the skateboard,” Adam said.

Adam’s dad decided this was a good opportunity to teach Adam about credit, earnings, money, savings and other important economic skills.

“That sounds like a possibility, Son, but there are some other things we need to consider. We will need to grow extra produce if you plan to make very much money. We normally use most of what we grow. That means we will need to make the garden bigger. There are costs that go along with growing produce, and you will need money for that before you can get started. That means you probably need to borrow money in order to make money,” Dad explained. “You will also need to pay interest on the loan.”

“Interest? What’s that?” Adam asked.

“Interest is the fee you pay to borrow money. It is compensation to the lender for the possibility the money won’t be paid back and for the fact that the lender doesn’t have the money available to buy other things or make other investments. In other words, you get the benefit of using the money before you have earned it, while I get the benefit of earning a little money for letting you borrow it. In economics, interest is considered the price of credit,” Dad explained.

“But, Dad,” Adam moaned.

“Well, do you want the skateboard or not?” Dad asked.

“OK,” Adam agreed, reluctantly..

“OK,” Dad continued. “The first thing you need to do is make a plan. We need to find out which crops will do best and have the greatest potential for profit. I will pick you up after school tomorrow, and we’ll go down to the OSU Extension Center and talk to the county agriculture educator. He will want to see a soil sample, so you need to get out in the garden and dig up a bucket full of soil so they can send it off for testing and let us know what nutrients we need to add. Then we will can figure out how much money you need to borrow to get started.”

Adam grabbed a clean bucket in the garden shed and headed outside. He knew that if his dad was involved, the chances of getting the skateboard were getting better.

The next afternoon, Adam and his dad visited the Extension office. The educator had some great suggestions and showed Adam and his dad where they could find fact sheets about each crop on the OSU Cooperative Extension Service website.

“This might be kind of fun,” Adam told his dad as they drove home.

Adam and his parents reviewed the information on the website and developed a plan for the garden. They decided which crops might be the most profitable and also thought about which crops they could most easily preserve if they ended up with surplus. They figured out how much more space would need to be tilled and made a list of all the materials that Adam would need and how much it would all cost.

Together they worked up a contract. Adam’s dad would loan him the money he needed to get the planting started. Once the crop was planted and Adam had made enough to pay his dad back, with a small interest fee, his dad would loan him the money for the new skateboard. The skateboard would serve as collateral on the loan, in case Adam failed to keep up his end of the bargain.

There were a few minor setbacks, like the time a raccoon got into the garden and ate some of Adam’s watermelons, but for the most part the plan worked. By the end of the summer, Adam had his skateboard and even some extra money for his college fund. His dad took the interest Adam had paid on the loan and added that to the the college fund, too.

Now Adam was the coolest kid in his class. Not only did he have a new skateboard, but he also had money in the bank and had learned how to market his skills to get what he wanted.

A New Skateboard for Adam

1. In the story “A New Skateboard for Adam,” what is the central idea? How is it conveyed through particular details?
2. Describe how Adam’s character changes as the story unfolds. Provide evidence from the text.
3. Explain how the following passage fits into the overall structure of the text. How does it contribute to the development of the plot.

The next day Adam passed by the window once more. He had to have that skateboard! The work and risk would be worth the reward of the new skateboard. Adam had visions of all the tricks he could master on the board and how cool it would be to cruise with his buddies.

4. In your discussion of the background information included with this lesson, you learned how farmers finance their operations through the Farm Credit System. How does the story “A New Skateboard for Adam” relate to what you learned about the Farm Credit System?

5. Use context clues to explain the meaning of the following words.

profits
produce
mulching
harvesting
risk
reward
credit
compensation
nutrients
tilled
market

A Skateboard for Adam

GEOMETRY

- Adam's parents decide to let him extend the family garden to grow vegetables for the farmer's market.
 - If the perimeter of Adam's part of the garden is 148 feet and the length is 25 feet, what is the width? Write an equation to show your calculation.
 - What is the area of Adam's garden? Write an equation to show your calculation.
- On a separate piece of paper, make a scale drawing of Adam's garden where $\frac{1}{4}$ inch is equal to 1 foot.
- Adam divides his garden into eight rows with three rows for spring vegetables and five rows for summer vegetables. Two of the spring rows are $1\frac{1}{2}$ feet long and one, for potatoes, is 3 feet long. Two of the summer rows are 4 ft. long and three are 3 ft. long. Draw the rows to scale on your drawing of the garden.

RATIOS AND PROPORTIONAL RELATIONSHIPS

- The total length of the family garden, including Adam's part, is 160 feet long. Adam's part is 25 feet long.
 - What is the length of the family's part of the garden without Adam's part?
 - What is the ratio of the length of Adam's part of the garden to the length of the entire family garden? Write an equation to represent your calculation. Write the ratio and the fraction in their simplest forms.
- Adam divides his garden into eight rows with three rows for spring vegetables and five rows for summer vegetables. Two of the spring rows are $1\frac{1}{2}$ feet long and one, for potatoes, is 3 feet long. Two of the summer rows are 4 ft. long and three are 3 ft. long.
 - What is the total length of the spring rows? Write an equation to show your calculations.
 - What is the total length of the summer rows? Write an equation to show your calculations.
 - Based on your calculations above, what is the ratio of the total length of spring vegetable rows to the total length of fall vegetable rows? Write the ratio and fraction in their simplest forms.
- Adam decided to keep track of the number of hours he spent working in the garden in a week to figure out his rate of earnings per hour of work. On Monday he spent $2\frac{1}{2}$ hours pulling weeds. On Tuesday he spent $3\frac{1}{4}$ hours putting down mulch between rows. On Wednesday he spent $2\frac{3}{8}$ hours checking for insects and picking squash bugs off the squash. On Thursday he spent two more hours pulling weeds. On Friday he spent $3\frac{1}{2}$ hours harvesting. On Saturday he spent six hours working at the farmer's market.
 - How many hours did Adam spend working during the week?
 - Convert your answer to a decimal.
 - Adam earned \$123.65 at the farmer's market that week. Based on your calculation above, what is his ratio

of hours worked to money earned?

c. What is his rate per hour? Write an equation to show your calculations.

4. Adam owes his dad \$366 for the materials to get the garden started. He wants to get it paid back by the end of June, which is seven weeks away.

a. In addition to the \$366 he owes for the materials, Adam also must pay his dad 1.5 % interest. How much interest does he owe?

b. What is the total amount he owes, including interest?

c. What is the ratio of the seven weeks remaining until the end of June to the amount Adam owes his dad?

d. What is the rate he needs to earn per week to get the debt paid by the end of June?

EXPRESSIONS AND EQUATIONS

5. Adam takes 14 baskets of tomatoes to the market and sells the baskets for \$4.35 each.

a. How much money does he make selling tomatoes? Write an equation to show your calculation.

b. If each basket of tomatoes weighs $1\frac{1}{2}$ pounds how much does he make per pound? Write an equation to show your calculations.

STATISTICS AND PROBABILITY

1. During the month of May, Adam earned \$34.10, \$42.45, and \$58.98. During June he earned \$113.98, \$119.14, \$126.82, \$126.66. In July, Adam earned the following: \$165.38, \$175.18, \$205.36, \$208.19. Find the mean, median, mode and range for Adam's earnings.

mean=

median =

mode =

range =

NUMBER SYSTEM

1. On one trip to the farmer's market in July, Adam takes $8\frac{2}{3}$ pounds of tomatoes, $16\frac{1}{4}$ pounds of squash, $8\frac{1}{2}$ pounds of beans, 6 pounds of okra and $3\frac{3}{5}$ pounds of peppers. How many pounds of vegetables did he take? Write an equation to show your calculations.

2. Adam sold 12 pounds of tomatoes at \$3 a pound, $21\frac{1}{4}$ pounds of squash at \$2.50 a pound, $18\frac{1}{2}$ pounds of beans at \$2 a pound $8\frac{3}{4}$ pounds of okra at \$3 a pound and $6\frac{1}{2}$ pounds of peppers at \$2 a pound. How much money did he make?

3. A credit is money added. A debit is money spent. In the chart Adam has recorded his loans paid, interest and expenses in the debit column and his loans received and earnings in the credit column. Calculate to find Adam's balance at the end of the summer. Remember that you add a credit and subtract a debit.

	credit (+)	debit (-)	balance
loan from dad to start	\$366.00		\$366.00
soil sample		\$10.00	
seeds		50.00	
compost		179.50	
mulch		155.30	
earnings week 1	34.10		
earnings week 2	42.45		
earnings week 3	58.98		
earnings week 4	113.98		
earnings week 5	119.14		
earnings week 6	126.82		
1.5 percent interest on \$366		5.49	
Pay Dad back		366.00	
earnings week 7	126.66		
loan for skateboard	176.95		
purchase skateboard		176.95	
earnings week 8	165.38		
earnings week 9	175.18		
earnings week 10	205.36		
earnings week 11	208.19		
1.5% interest on \$176.95		2.65	
Pay Dad back		176.95	

The amount of money Adam had left at the end of the summer went into his college savings account at his credit union. His dad explained that just as Adam had to pay Dad to use his money, the credit union would pay Adam for keeping his money in the savings account. His credit union pays 2% interest if he keeps the money in the account for one year. This is called the “annual percentage yield” (APY).

4. If Adam keeps his money in the account for a year and the interest rate stays at 2 %, how much interest will be added to his account?

CHALLENGE PAGE

For older/advanced students: Fill in the blank ledger sheet with information from the previous problems and the following information, placing each item in the correct column (debit or credit). Calculate to find Adam's balance at the end of the summer.

Materials needed to get garden started: soil sample, \$10; seeds, \$50; compost, \$179.50; mulch, \$155.30
 Cost of skateboard: \$176.95

	credit (+)	debit (-)	balance
loan from dad to start			
soil sample			
seeds			
compost			
mulch			
earnings week 1			
earnings week 2			
earnings week 3			
earnings week 4			
earnings week 5			
earnings week 6			
1.5 percent interest on \$366			
Pay Dad back			
earnings week 7			
loan for skateboard			
purchase skateboard			
earnings week 8			
earnings week 9			
earnings week 10			
earnings week 11			
1.5% interest on \$176.95			
Pay Dad back			

RULE OF 72: The Rule of 72 is an easy way to calculate how long it will take for your money to double. Take the number 72 and divide it by the interest rate you hope to earn. That number gives you the approximate number of years it will take for your investment to double. Try the Rule of 72 with Adam's college savings—the balance on the ledger sheet above. Assume he will earn 2% interest from his credit union.

What can Adam do to make his savings grow more quickly?

A New Skateboard for Adam (answers)

GEOMETRY

- Adam's parents decide to let him extend the family garden to grow vegetables for the farmer's market.
 - If the perimeter of Adam's part of the garden is 148 feet and the length is 25 feet, what is the width? Write an equation to show your calculation.
 $148 - 2(25) = x/2$ Width = 49 ft
 - What is the area of Adam's garden? Write an equation to show your calculation.
 $25 \times 49 = 1,225$ square feet
- On a separate piece of paper, make a scale drawing of Adam's garden where $1/4$ inch is equal to 1 foot.
- Adam divides his garden into eight rows with three rows for spring vegetables and five rows for summer vegetables. Two of the spring rows are $1 \frac{1}{2}$ feet long and one, for potatoes, is 3 feet long. Two of the summer rows are 4 ft. long and three are 3 ft. long. Draw the rows to scale on your drawing of the garden.

RATIOS AND PROPORTIONAL RELATIONSHIPS

- The total length of the family garden, including Adam's part, is 160 feet long. Adam's part is 25 feet long.
 - What is the length of the family's part of the garden without Adam's part?
 $160 - 25 = 135$ Answer: 135 feet long
 - What is the ratio of the length of Adam's part of the garden to the length of the entire family garden? Write an equation to represent your calculation. Write the ratio and the fraction in their simplest forms.
Ratio = 25 feet : 135 feet = $25/135 = 5/27 = 5:27$
- Adam divides his garden into eight rows with three rows for spring vegetables and five rows for summer vegetables. Two of the spring rows are $1 \frac{1}{2}$ feet long and one, for potatoes, is 3 feet long. Two of the summer rows are 4 ft. long and three are 3 ft. long.
 - What is the total length of the spring rows? Write an equation to show your calculations.
 $2(1 \frac{1}{2}) + 3 = 3 + 3 = 6$ Answer: 6 feet
 - What is the total length of the summer rows? Write an equation to show your calculations.
 $2(4) + 3(3) = 8 + 9 = 17$ Answer: 17 feet
 - Based on your calculations above, what is the ratio of the total length of spring vegetable rows to the total length of fall vegetable rows? Write the ratio and fraction in their simplest forms.
Ratio = $6:17 = 6/17 = 6:17$
- Adam decided to keep track of the number of hours he spent working in the garden in a week to figure out his rate of earnings per hour of work. On Monday he spent $2 \frac{1}{2}$ hours pulling weeds. On Tuesday he spent $3 \frac{1}{4}$ hours putting down mulch between rows. On Wednesday he spent $2 \frac{3}{8}$ hours checking for insects and picking squash bugs off the squash. On Thursday he spent two more hours pulling weeds. On Friday he

spent $3\frac{1}{2}$ hours harvesting. On Saturday he spent six hours working at the farmer's market.

a. How many hours did Adam spend working during the week?

$$2\frac{1}{2} + 3\frac{1}{4} + 2\frac{3}{8} + 2 + 3\frac{1}{2} + 6 = 2\frac{4}{8} = 3\frac{2}{8} + 2\frac{3}{8} + 2 + 3\frac{4}{8} + 6 = 18\frac{13}{8} = 19\frac{5}{8}$$

Answer: $19\frac{5}{8}$ hours

b. Convert answer a to a decimal value.

$$19\frac{5}{8} = 19.625$$

c. Adam earned \$123.65 at the farmer's market that week. Based on your calculation above, what is his ratio of hours worked to money earned?

$$19.625 : 123.65$$

c. What is his rate per hour? Write an equation to show your calculations.

$$123.65 \div 19.625 = 6.30 \quad \text{Answer: } \$6.30 \text{ per hour}$$

4. Adam owes his dad \$366 for the materials to get the garden started. He wants to get it paid back by the end of June, which is seven weeks away.

a. In addition to the \$366 he owes for the materials, Adam also must pay his dad 1.5 % interest. How much interest does he owe?

$$366 \times .015 = 5.49 \quad \text{Answer: } \$5.49$$

b. What is the total amount he owes, including interest?

$$366 + 5.49 = 371.49 = \$371.49$$

c. What is the ratio of the seven weeks remaining until the end of June to the amount Adam owes his dad?

$$7 : 371.49$$

d. What is the rate he needs to earn per week to get the debt paid by the end of June?

$$371.49 \div 7 = 53.07 \quad \text{Answer: } \$53.07$$

EXPRESSIONS AND EQUATIONS

5. Adam takes 14 baskets of tomatoes to the market and sells the baskets for \$4.35 each.

a. How much money does he make selling tomatoes? Write an equation to show your calculation.

$$14(4.35) = 60.90 \quad \text{Answer: } \$60.90$$

b. If each basket of tomatoes weighs $1\frac{1}{2}$ pounds, what is the total weight of the 14 baskets?

$$14(1.5) = 21 \quad \text{Answer: } 21 \text{ pounds}$$

c. Based on your calculations above, what is the ratio of dollars earned to pounds of tomatoes?

$$60.90 : 21$$

d. How much money does Adam earn per pound of tomatoes?

$$60.90 \div 21 = 2.90 \quad \text{Answer } \$2.90$$

STATISTICS AND PROBABILITY

1. During the month of May, Adam earned \$34.10, \$42.45, and \$58.98. During June he earned \$113.98,

\$119.14, \$126.66, \$126.82. In July, Adam earned the following: \$165.38, \$175.18, \$205.36, \$208.19. Find the mean, median, mode and range for Adam's earnings.

$$\text{mean} = \$125.11$$

$$\text{median} = \$126.66$$

$$\text{mode} = \text{no mode}$$

$$\text{range} = \$174.09$$

NUMBER SYSTEM

1. On one trip to the farmer's market in July, Adam takes $8\frac{2}{3}$ pounds of tomatoes, 16 pounds of squash, $8\frac{1}{3}$ pounds of beans, 6 pounds of okra and $3\frac{3}{4}$ pounds of peppers. How many pounds of vegetables did he take? Write an equation to show your calculations.

$$8\frac{2}{3} + 16 + 8\frac{1}{3} + 6 + 3\frac{3}{4} = 8\frac{8}{12} + 16 + 8\frac{4}{12} + 6 + 9/12 = 41 + 21/12 = 41 + 1\frac{9}{12} = 42\frac{3}{4}$$

Answer: $42\frac{3}{4}$ pounds

2. Adam sold 12 pounds of tomatoes at \$3 a pound, $21\frac{1}{4}$ pounds of squash at \$2.50 a pound, $18\frac{1}{2}$ pounds of beans at \$2 a pound, $8\frac{3}{4}$ pounds of okra at \$3 a pound and $6\frac{1}{2}$ pounds of peppers at \$2 a pound. How much money did he make?

$$12(3) + 2.50(21.25) + 2(18.5) + 3(8.75) + 2(6.5) = 36 + 53.13 + 37 + 26.25 + 13 = 165.38$$

Answer: \$165.38

3. A credit is money added. A debit is money spent. In the chart Adam has recorded his loans paid, interest and expenses in the debit column and his loans received and earnings in the credit column. Calculate to find Adam's balance at the end of the summer. Remember that you add a credit and subtract a debit.

	credit (+)	debit (-)	balance
loan from dad to start	\$366.00		\$366.00
soil sample		\$10.00	356.00
seeds		50.00	306.00
compost		179.50	126.50
mulch		155.30	-28.80
earnings week 1	34.10		5.30
earnings week 2	42.45		47.75
earnings week 3	58.98		106.73
earnings week 4	113.98		220.71
earnings week 5	119.14		339.85
earnings week 6	126.82		466.67
1.5% interest on loan of \$366		5.49	461.18
Pay Dad back		366.00	95.18
loan for skateboard	176.95		272.13
purchase skateboard		176.95	95.18
earnings week 7	126.66		221.84
earnings week 8	165.38		387.22
earnings week 9	175.18		562.40
earnings week 10	205.36		767.76
earnings week 11	208.19		975.95
1.5% interest on loan of \$176.95		2.65	973.30
Pay Dad back		176.95	796.35

The amount of money Adam had left at the end of the summer went into his college savings account at his credit union. His dad explained that just as Adam had to pay Dad to use his money, the credit union would pay Adam for keeping his money in the savings account. His credit union pays 2% interest if he keeps the money in the account for one year. This is called the "annual percentage yield" (APY).

4. If Adam keeps his money in the account for a year and the interest rate stays at 2 %, how much interest will be added to his account?

$$796.35 \times .02 = 15.927$$

Answer: \$15.93