Savings Accounts

What’s Next Project
You must show evidence of your reading either with highlighting or annotating (not just the first page but the whole packet)
This packet is due on Thursday 3/24 for periods 2/4 and Wednesday 3/23 for period 7

SAVINGS ACCOUNTS OVERVIEW
When saving your money, you will be placing money in many different types of savings instruments, including very safe and stable investments vehicles. This is especially true for money that you are going to need in the short-term (as compared to long-term investments, such as buying a house). This category includes bank savings accounts and money market mutual funds, some of the safest short term investments.

When placing your money with a bank or money market fund, you earn interest, or yield, which fluctuates, depending on general rates of interest.

TYPES OF SAVINGS ACCOUNTS:

Bank Savings Accounts:
When you are beginning to save, you should place your money in investments that are as safe as possible. In addition, you will likely always have at least some of your money in short-term investments. Bank savings accounts are such an investment. The federal government backs these accounts with what is known as Federal Deposit insurance Corporation (FDIC) Insurance.

Money Market Account:
These are accounts offered by banks. However, in these accounts the bank typically pays you a higher rate of interest than a savings account.

CD or Certificate of Deposit:
The bank holds your money for a set period of time. Usually one to six months, or one to five years. Unlike a normal savings account, you may not withdraw your money at any time. If you do, you will be subject to withdrawal fees.

Money Market Funds:
Similar to bank savings accounts are money market funds. Money market accounts are available from mutual fund companies. They are similar, but you usually get a better return with money market funds. Also, since these funds are not held with a bank, they are not FDIC insured. However, they are invested in very short-term bonds, which tend to be less risky than longer-term bonds and invest in safe government investments, corporate commercial paper, and other related investments. In addition, they are regulated by the U.S. Securities and Exchange commission. Those money market mutual funds that invest exclusively in U.S. government securities have very little risk, while giving you better rates of return then typical bank savings accounts.
Savings Account
You are earning enough money to start saving. You decide to open a savings account. A savings account is a bank account that earns money while protecting the money.

Deposits
You can add money to a savings account by making a deposit. One way to make a deposit is by completing a deposit form. You will usually receive deposit forms with your name and account number printed on them shortly after opening a savings account.

Another way to make a deposit is to make an arrangement with your employer. If you provide your employer with your account number and the routing number of the bank, your employer can deposit your paychecks directly into your account. This is known as direct deposit.

ACTIVITY: Using a Savings Deposit Form
Susie Saver has completed the deposit form below. Review the form and answer the questions.

1) What is the name of Susie's bank? ______________________________________________________________

2) How much did Susie deposit in cash? $_____________________

3) How much did Susie deposit as a check? $__________________________

4) What is Susie's account number? __________________________________

5) Susie forgot to write the total amount of her deposit. What amount should she write on the form?
$________________
**Withdrawal**

You can take money out of a savings account when you need it by making a withdrawal. You can complete a withdrawal form that tells the bank to take a certain amount of money out of your account. A withdrawal form is very similar to a deposit form. It includes the name of the bank, your name, the date, your account number, and the amount you would like to withdraw.

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**ACTIVITY: Using a Savings Withdrawal Form**

Review the withdrawal form below and answer the questions.

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![Withdrawal Form]

Wally Withdrawer
Anywhere, USA

DATE ___4-15-08___

SAVINGS
WITHDRAWAL

I WISH TO WITHDRAW FROM
MY SAVINGS ACCOUNT

$ __93.50

Working Bank

46815242: 817212

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6) On what date was this form completed? _________________________________

7) What was the amount of the withdrawal in words?

__________________________________________________________________________

8) From which account number was the money withdrawn? ________________________________

9) What is the name of the bank that maintains the account? ________________________________

10) What is the routing number for the bank? ________________________________

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**TIP**

The number to the left of your account number is the bank’s ______ number. Each bank is _____________ by a different routing number.
A safe and easy way to save your money is with a bank savings account. A bank savings account allows you to deposit money (add money to your account) or withdraw money (remove money from your account) at any time. In return for keeping your money at the bank, the bank pays you money, also known as interest.

Interest will be earned on the money you have on deposit at the bank. Since you may deposit or withdraw money each day, the bank will calculate how much money you should receive in interest. You will also receive a periodic statement from the bank listing your deposits, withdrawals, interest, and account balances. Each bank may pay a different amount of interest, so it makes sense to look at several banks to decide which one to use.

For example, if you have $100 and save it in a bank savings account, and the bank pays 5% interest, then in one year you will have an extra $5.00 in interest, or $105 in total. Therefore, the bank paid you $5.00 for saving your money with them. In summary:

<table>
<thead>
<tr>
<th>Beginning Savings</th>
<th>Interest Rate</th>
<th>Interest</th>
<th>Savings after one year</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100.00</td>
<td>5%</td>
<td>$5.00</td>
<td>$105.00</td>
</tr>
</tbody>
</table>

**ACTIVITY:** For each of the following beginning savings balances and interest rates finish filling in the following table. Round each calculation to the nearest penny (two decimal places). Remember that in order to calculate the amount of interest you must change your % to a decimal (example: 5% = .05 and 50% = .50)

<table>
<thead>
<tr>
<th>Beginning Savings</th>
<th>Interest Rate</th>
<th>Interest</th>
<th>Savings after one year</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40.00</td>
<td>2%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$190.00</td>
<td>2%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$130.00</td>
<td>5%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$140.00</td>
<td>7%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$30.00</td>
<td>6%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$300.00</td>
<td>7%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$620.00</td>
<td>9%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$310.00</td>
<td>6%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$780.00</td>
<td>3%</td>
<td>$______</td>
<td>$____________</td>
</tr>
<tr>
<td>$260.00</td>
<td>9%</td>
<td>$______</td>
<td>$____________</td>
</tr>
</tbody>
</table>

(1 point for each blank = 20 total points)
Earning Interest

Interest is a percentage of the amount you have on deposit that you get on an annual, monthly or quarterly basis, as a payment for allowing them to hold your money, and use it to lend to others. The more money you deposit, and the longer you keep the money deposited, the more interest you will earn, and the larger your account balance will grow.

Jordan's bank pays 9% a year interest on the previous year's balance. For the first year, Jordan had $8,000.00 on deposit at the bank. If each year Jordan does not withdraw any money, finish filling in the following to see how much money Jordan will end up with after 8 years. Multiply each year's beginning balance by the interest rate and then calculate the new total balance. Round each calculation to the nearest penny.

<table>
<thead>
<tr>
<th>Interest Rate = 9%</th>
<th>Balance (previous balance + interest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(multiply the balance x .09)</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>Interest earned in Year 1</td>
<td>$ 720.00</td>
</tr>
<tr>
<td>Interest earned in Year 2</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 3</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 4</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 5</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 6</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 7</td>
<td>$</td>
</tr>
<tr>
<td>Interest earned in Year 8</td>
<td>$</td>
</tr>
<tr>
<td><strong>TOTAL INTEREST</strong></td>
<td>$</td>
</tr>
</tbody>
</table>

(1 point for each blank = 15 total points)
Simple and Compound Interest

People pay interest for using someone else's money. Essentially, a bank uses your money while it is deposited there. As a result, the bank pays you interest for the use of your money. If you borrow money from a bank, you pay interest for the use of the money.

Simple Interest

Interest that is calculated once is known as simple interest. To calculate simple interest, you need to know three pieces of information. The first information is the principal, which is the amount of money deposited or borrowed. The second information is the interest rate, which is a percent determined by the bank or person making the loan. The third information is the length of time over which the money is deposited or borrowed.

Once you know this information, you can use the following formula to calculate simple interest.

\[ \text{Interest} = \text{principal} \times \text{interest} \times \text{time} \]

\[ \text{Keep in mind that interest must first be converted to a decimal and time must be in years.} \]

ACTIVITY: Calculating Simple Interest

Solve the problems.

Ted borrowed $100 for 2 years at a 10% interest rate.

1) How much interest will he pay on the loan? $____________________
2) What will be the total amount due at the end of the loan? $____________________

Gianna put $1,000 in a savings account for 18 months. The interest on the account is 3.5% .

3) How much will Gianna earn in interest? $____________________
4) What amount will she have at the end of that time period? $____________________

Tyrone owes $28,000 in student loans. He will pay the loan for 20 years at a rate of 8.25% .

5) How much will Tyrone pay in interest? $____________________
6) How much will he pay altogether? $____________________

Evelyn borrowed $180,000 to buy a home. The bank is charging an interest rate of 7.5% over a period of 30 years.

7) How much will Evelyn pay in interest? $____________________
8) What is the total amount she will pay at the end of the loan? $_____________________
Compound Interest

Unlike simple interest, compound interest is calculated at regular intervals. As a result, the money you earn in interest becomes part of the principal and also starts to earn interest. Each time the interest is calculated, it is said to be compounded. Interest might be compounded annually (1 time per year), semiannually (2 times per year), quarterly (4 times per year), monthly (12 times per year), or daily (365 times per year).

The formula to calculate the amount of money that has accumulated as a result of compound interest is a bit trickier than that for simple interest.

The formula is shown below.

\[ P = C(1 + \frac{r}{n})^{nt} \]

where

- \( P \) = future value or new principal
- \( C \) = initial deposit
- \( r \) = interest rate (as a decimal)
- \( n \) = number of times per year interest is compounded
- \( t \) = number of years invested

**ACTIVITY: Calculating Compound Interest**

Solve the problem and answer the questions.

Dr. Livingston deposits $10,000 in an account at an interest rate of 6% for one year. Calculate the new principal for each of the compounding periods listed. A sample has been done for you.

- Unless you know how to use the exponent key on a calculator, it is likely much easier to go online and Google to find a “compound interest calculator” that will do the calculation for you once you input the correct information. I recommend using “the calculator site” and their standard calculator (easy to use).

<table>
<thead>
<tr>
<th>( n )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly (1)</td>
<td>$</td>
</tr>
<tr>
<td>Semiannually (2)</td>
<td>$10,609</td>
</tr>
<tr>
<td>Quarterly (4)</td>
<td>$</td>
</tr>
<tr>
<td>Monthly (12)</td>
<td>$</td>
</tr>
<tr>
<td>Daily (365)</td>
<td>$</td>
</tr>
</tbody>
</table>

1) What is the difference between the amount earned through yearly compounding and daily compounding? $_____________________

2) What would be the new principal earned through semiannual compounding if Dr. Livingston left his money in the account for two years? $_____________________

3) What would be the new principal earned through semiannual compounding if Dr. Livingston left his money in the account for ten years? $_____________________
ATM and Debit Cards

In addition to using deposit and withdrawal forms, you can often access your account using an ATM card. ATM stands for automatic teller machine. An ATM card is a plastic card that looks much like a credit card. Using an ATM card, you can do most of the same things you can do at a bank even when the bank is closed or you are not near a bank branch. You can get cash, deposit money, check account balances, and withdraw funds using a personal identification number, or PIN, that you establish when you set up the account.

Some ATM cards, known as debit cards, can also be used to make purchases. When you use a debit card to buy something, you are asked to punch your PIN into a device. This enables the store to contact your bank electronically. The amount of the purchase is then deducted from your account and transferred to the store's account. The amount you can spend is limited by the amount in your bank account rather than any amount specified by the bank. However, most banks establish daily limits to the amount that may be withdrawn at an ATM.

Perhaps you have been in a store when you overheard a customer being asked "Debit or credit?" after handing a card to a cashier. The reason is that some ATM cards can be used in different ways. If they are used as debit, the funds are withdrawn immediately. If they are used as credit, the funds may take two or three business days to be transferred. When a card is used as debit, many stores allow you to request additional cash when making a purchase. Suppose, for example, you purchase $56.78 worth of food at a local grocery store. You then request $20 cash back. A total of $76.78 will be withdrawn from your bank account. You will receive your groceries plus a $20 bill.

Be careful. A bank may charge a fee for using an ATM card. Most banks will allow you to use ATMs at their bank locations for free, but charge one or two dollars for using an ATM at another bank.

ACTIVITY: Using ATM Cards

Answer the questions.

Maya spent $43.26 at a store. She paid with a debit card and requested $25 cash back. What is the total amount that will be deducted from her bank account?

1) $______________________________

Last Saturday Theodore withdrew $50 at another bank's ATM. There is a fee of $2 for such a transaction. He then used his ATM card to purchase $36.12 worth of supplies for a home improvement project. What was the total amount that was deducted from his bank account that day?

2) $______________________________

TIP

If you use ATMs frequently, fees can add up quickly. Avoid fees by using your own bank's ATMs or requesting extra cash when making purchases.
Now that you are more familiar with savings accounts, it’s time to do some comparison shopping. Use the Internet to research three different banks. **For each bank, attach a printout of the types of savings accounts they offer and the features of each.** Once you have completed your research, answer the following questions...

1) What are some features that the savings accounts have in common regardless of which bank they are from?

2) Choose one of the banks you researched, what features/characteristics are different between the various accounts they offer?

3) Do any of the accounts have a minimum daily balance? What is this and why do you think banks require it?

4) Of the various accounts you researched, which would you choose? Why?

5) Based on your answer for question #4, what is the current interest rate for that particular savings account?