

Automate Your Checking Register

When you want to maintain a check register, you've got two options -- paper or digital. Many people find the free paper check register that accompanies their checkbook to be sufficient, while others feel that automating the math using a spreadsheet can be a big time saver. In this project, the emphasis is on creating a digital check register.

Part I: Design the spreadsheet

Use the image below as a model to design a spreadsheet^{1,2,3,4,5,6} that looks like the classic checkbook register.

Number or Code	Date	Transaction Description	Payment Amount	Deposit Amount	\$ BALANCE

Hints:

- In an electronic spreadsheet, you want your "Payment Amount" to be **one cell** where dollars and cents both go, not two separate boxes like on a paper checking register.

CORRECT:

INCORRECT:

Payment Amount		Payment Amount	
\$24.35		\$24	35

- The same is true for "Deposit Amount" and "Balance." Your spreadsheet should have 6 columns in total, not 9.
- The alternate shading for the rows is a nice formatting touch and makes it look more professional, but your spreadsheet will work even if you don't do this.

Part II: Populate your checking register (except the balance)

→ **Option 1: Use real data:** If you have a checking account, choose a date for your starting balance, and then collect your receipts (from stores & ATMs), checkbook usage, online payments, deposit slips, etc., for a week or more -- as long as it takes you to collect at least one debit, at least one credit, and a total of at least 10 transactions to record. Use your data to populate the first five columns of your spreadsheet.

→ **Option 2: Use data below:** If you don't have a checking account, or would prefer not to use your actual data, use the transactions below to populate the first five columns of your spreadsheet:

- ◆ Starting balance on October 1: \$525.75.
- ◆ Write a check (#2011) to the school for a lost textbook on October 5: \$86.00
- ◆ Deposit a birthday check from your uncle on October 7: \$50
- ◆ Use debit card to pay for movie ticket and snacks on October 8: \$17.32

¹ [How To: Entering & Editing Data](#)

² [How To: Formatting Numbers](#)

³ [How To: Formatting Columns & Rows](#)

⁴ [How To: Formatting Text Within a Cell](#)

⁵ [How To: Equations with Relative Cell References](#)

⁶ [How To: Formatting Your Entire Spreadsheet](#)

- ◆ Use debit card to buy new shirt to wear for picture day on October 9: \$27.99
- ◆ Take money from ATM for spending cash on October 10: \$40
- ◆ Fees (\$2 from your bank and \$1.50 for other bank) for using out-of-branch ATM on October 10: \$3.50
- ◆ Direct deposit income from your job on October 15: \$259.46
- ◆ Use debit card for coffee on October 21: \$4.75
- ◆ Auto-pay for Hulu Plus on October 21: \$7.99
- ◆ Buy concert tickets online for you and a friend (she'll repay you later) on October 29: \$51.68
- ◆ Auto-transfer money into your savings account on October 30: \$75.00
- ◆ Closing balance on October 31: TBD

Part III: Calculate your balances

In the balance column of your spreadsheet, you want to keep a running total of your checking account balance after each transaction. Fill in your "Balance" column the whole way down your spreadsheet.

Hints:

- Remember that the main advantage of using an electronic spreadsheet is you do NOT want to do the mathematical calculations yourself; **the spreadsheet should do all of the math for you.**
- Each entry in your Balance column (aside from the starting balance) should be a formula that calculates the balance after that row's transaction.

1. What is your ending balance after this set of transactions?

Part IV: Next steps

2. If you continued similar earning and spending trends for the next year, what would be the overall impact on your checking account balance? Explain how you arrived at your answer.

3. Thus far, this project has taken you through the steps of balancing your checkbook electronically by using a spreadsheet. The next step would be to reconcile your checking register against your October checking statement. Describe the steps for doing so below, specifically highlighting how using an electronic spreadsheet as a checking register will make reconciling more or less difficult than a paper register.

4. Personally, do you think you'd prefer to balance and reconcile your checkbook on paper or electronically with a spreadsheet? Explain your reasoning.

Number or Code	Date	Transaction Description	Payment Amount	Deposit Amount	Balance
	10/1/2014	Starting Balance			\$525.75
2011	10/5/2014	Replace lost textbook - check to school	\$86.00		\$439.75
D	10/7/2014	Birthday check from Uncle		\$50.00	\$489.75
DC	10/8/2014	Movies	\$17.32		\$472.43
DC	10/9/2014	New shirt for pic day	\$27.99		\$444.44
DC	10/10/2014	Spending money ATM withdrawal	\$40.00		\$404.44
F	10/10/2014	ATM fees - out of network	\$3.50		\$400.94
D	10/15/2014	Direct Deposit		\$259.46	\$660.40
DC	10/21/2014	Coffee	\$4.75		\$655.65
O	10/21/2014	Autopay for Hulu	\$7.99		\$647.66
O	10/29/2014	Concert tickets	\$51.68		\$595.98
T	10/30/2014	Transfer to Savings	\$75.00		\$520.98
	10/31/2014	Closing Balance			\$520.98

<https://wa-appliedmath.org/>

Project Summary

Description: In this Common Core Standards-aligned project, students will mathematically assess the overdraft fees associated with major banks' checking accounts and write a brief argument based on their analysis.

Estimated Time: 45 mins

Grouping: Individual

Internet Usage: None

Spreadsheet Skills: Intermediate

Common Core Learning Standards

Mathematical Standards for Content - Modeling

- Choosing and using appropriate mathematics to analyze empirical situations, to understand them better, and to improve decisions.

Mathematical Standards for Practice

- 4: Model with mathematics.
- 5: Use appropriate tools strategically.
- 6: Attend to precision.

Anchor Standards for Writing

- 2: Write explanatory texts to convey information clearly and accurately.
- 10: Write routinely over shorter time frames for a range of tasks and purposes.

Automate Your Checking Register [Answer Key]

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Part II: Populate Your Checking Register (except the balance)

→ **Option 1: Use real data:** If you have a checking account, choose a date for your starting balance, and then collect your receipts (from stores & ATMs), checkbook usage, online payments, deposit slips, etc., for a week or more -- as long as it takes you to collect at least one debit, at least one credit, and a total of at least 10 transactions to record. Use your data to populate the first five columns of your spreadsheet.

→ **Option 2: Use data below:** [Answer Key Spreadsheet](#)

If you don’t have a checking account, or would prefer not to use your actual data, use the transactions below to populate the first five columns of your spreadsheet:

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- Each entry in your Balance column (aside from the starting balance) should be a formula that calculates the balance after that row’s transaction.

1. What is your ending balance after this set of transactions?

\$520.98

Part IV: Next Steps

2. If you continued similar earning and spending trends for the next year, what would be the overall impact on your checking account balance? Explain how you arrived at your answer.

My balance is approximately \$5 less at the end of the month than it was at the beginning.
After 12 months of similar spending and earning, my account would have approx \$60 less.

3. Thus far, this project has taken you through the steps of balancing your checkbook electronically by using a spreadsheet. The next step would be to reconcile your checking register against your October checking statement. Describe the steps for doing so below, specifically highlighting how using an electronic spreadsheet as a checking register will make reconciling more or less difficult than a paper register.

- When the statement arrives, I could put physical check marks on the paper statement (if receiving a paper statement) and a small x in column G of the spreadsheet I created for each transaction.
- If only receiving an electronic statement, I could go through e-statement in order and put a small x in column G of spreadsheet for each transaction as I verify it.
- Electronic checking register in spreadsheet should be easier to read than handwritten in checkbook. Can also use search feature to search on page for transactions; not possible in checkbook register. Additionally, you can take advantage of formulas and wide accessibility.

4. Personally, do you think you'd prefer to balance and reconcile your checkbook on paper or electronically with a spreadsheet? Explain your reasoning.

[Answers may vary] I personally would prefer to balance and reconcile electronically, because a spreadsheet allows me to take advantage of formulas that can auto-calculate. Online spreadsheets also have the advantage of being accessible anywhere. I also have a tendency to misplace items because I am disorganized. A spreadsheet is easily organizable and pretty hard to lose.