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# Financial Math: Banking Services

December 2<sup>nd</sup> – 6<sup>th</sup>, 2019



# Compare Checking Accounts

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## **location**

branch offices; hours of operation; availability of ATMs

## **fees**

monthly fees; per-check fees; printing of checks; balance inquiry fees; ATM fees

## **other charges**

overdraft charge; stop-payment fees; certified check fees; fee charged for falling below necessary balance

## **interest**

rate earned; minimum deposit to earn interest; compounding method

## **restrictions**

minimum balance; deposit insurance; holding period for deposited checks

## **special features**

mobile banking services; direct deposit; automatic payments; overdraft protection; online banking; discounts or free checking for students, seniors, or employees of certain companies

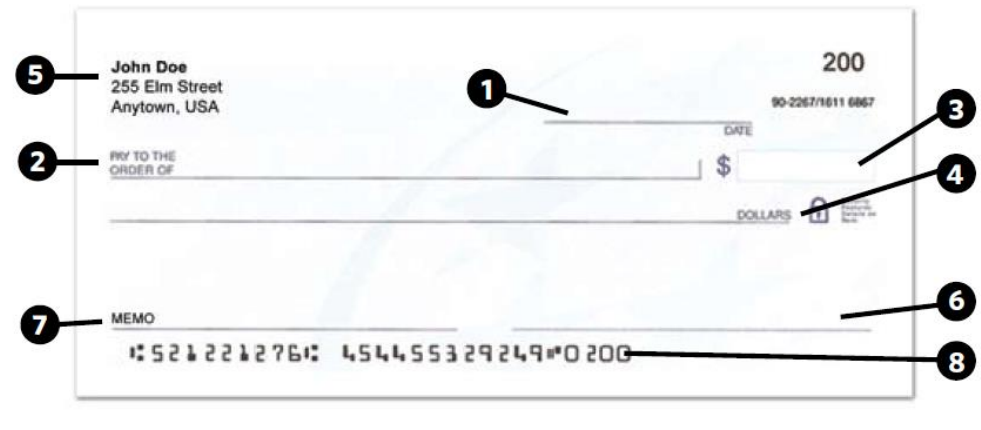
# Opening a Checking Account

<b>ACCOUNT NUMBER</b> _____	
<b>DATE</b> _____	
<b>SIGNATURE AUTHORIZATION CARD</b>	
<b>NAME</b> _____	<b>TYPE OF ACCOUNT</b>
<b>ADDRESS</b> _____	<input type="checkbox"/> Individual
_____	<input type="checkbox"/> Joint
<b>PHONE</b> _____	<input type="checkbox"/> Business
<b>SOCIAL SECURITY NO.</b> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="checkbox"/> Partnership
<p>YOU ARE HEREBY AUTHORIZED TO RECOGNIZE ANY* OF THE SIGNATURES SUBSCRIBED HERE IN THE PAYMENT OF FUNDS OR THE TRANSACTION OF ANY BUSINESS FOR THIS ACCOUNT. IT IS AGREED THAT ALL TRANSACTIONS BETWEEN THE BANK AND THE DEPOSITOR SHALL BE GOVERNED BY THE CONTACT PRINTED ON THE REVERSE SIDE OF THIS CARD.</p>	
_____	_____
AUTHORIZED SIGNATURE	AUTHORIZED SIGNATURE
<p><i>*If you wish to use two signatures, sign both signatures on the form.</i></p>	

The diagram shows a check with the following fields and callouts:

- 5**: Payer information: John Doe, 255 Elm Street, Anytown, USA
- 1**: DATE
- 2**: PAY TO THE ORDER OF
- 3**: Amount in numerals: 200
- 4**: Amount in words: DOLLARS
- 7**: MEMO
- 8**: MICR line: ⑆ 521221276⑆ 454455329249⑆ 0200

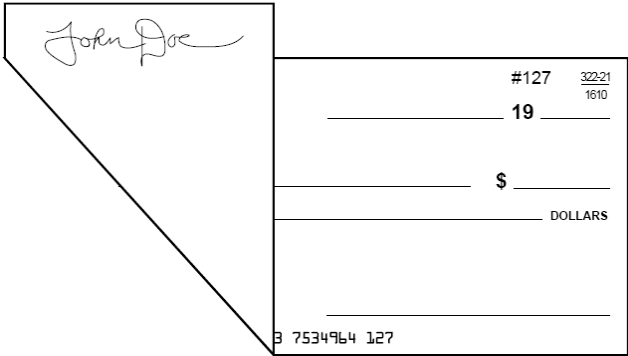
- 1. Date** Enter the date on which you are writing the check.
- 2. Payee** Enter the name of the person or the company you are going to give the check to.
- 3. Amount of check in numerals** Enter the amount of the check, in numbers. Don't leave any space between the pre-printed dollar symbol (\$) and the numbers indicating the amount of the check; there should be no room for someone to add in extra numbers.
- 4. Amount of check in words** Enter the amount of the check in words. Start writing at the far left side of the line. Follow the dollar amount by the word "and," then write the amount of cents over the number 100. Draw a line from the end of the 100 to the end of the line.



- 5. Name** Your personal information is printed here. Never list your Social Security number on your printed check.
- 6. Signature** Sign your check exactly the way you signed your name on the signature card you filled out when you opened your account.
- 7. Memo** Use this space to note why you wrote the check. If you are paying a bill, this is a good place to put information requested by the company.
- 8. Identification numbers** These numbers are used to identify the bank, your account number, and the check number. They are printed in a special magnetic ink that machines can read.

### blank endorsement

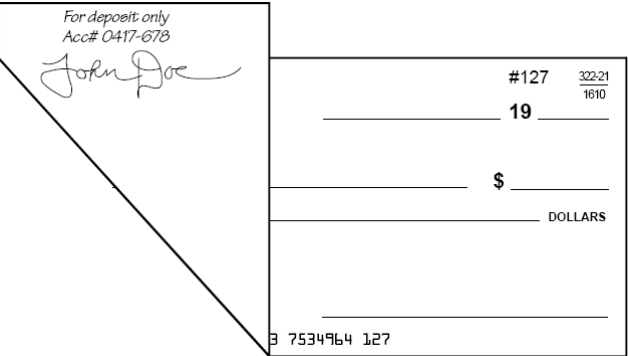
Anyone can cash check



A diagram of a check with a blank endorsement. The top left corner is folded over, showing a signature "John Doe". The rest of the check is blank. On the right side, there are fields for "#127 322-21 1610", "19", "\$", "DOLLARS", and a MICR line "7534964 127".

### restrictive endorsement

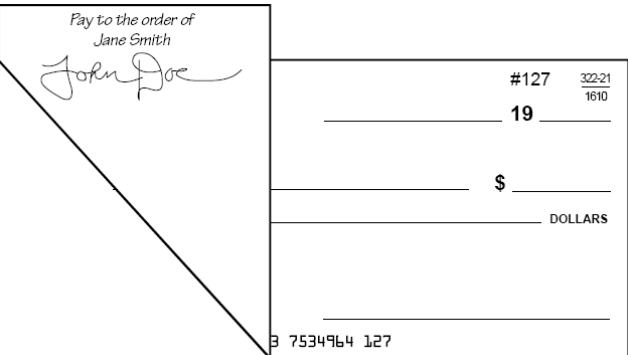
More secure than blank endorsement



A diagram of a check with a restrictive endorsement. The top left corner is folded over, showing a signature "John Doe". Above the signature, it says "For deposit only" and "Acc# 0417-678". On the right side, there are fields for "#127 322-21 1610", "19", "\$", "DOLLARS", and a MICR line "7534964 127".

### special (or full) endorsement

Transfer check to another party



A diagram of a check with a special endorsement. The top left corner is folded over, showing a signature "John Doe". Above the signature, it says "Pay to the order of" and "Jane Smith". On the right side, there are fields for "#127 322-21 1610", "19", "\$", "DOLLARS", and a MICR line "7534964 127".

# Making a Deposit in Person

**DEPOSIT SLIP**

**John Doe**  
255 Elm Street  
Anytown, USA

**1** DATE \_\_\_\_\_

SIGN HERE IF CASH RECEIVED FROM DEPOSIT

<b>4</b>	<b>CASH</b>	<b>CURRENCY</b>		<b>2</b>
		<b>COINS</b>		<b>3</b>
	LIST CHECKS SINGLY			<b>5</b>
				<b>6</b>
	TOTAL FROM OTHER SIDE			<b>6</b>
		<b>TOTAL</b>		<b>7</b>
		LESS CASH RECEIVED		<b>8</b>
		<b>NET DEPOSIT</b>		<b>9</b>

⑆ 521221276⑆ 454455329249⑈0200

1. Write the date of the deposit in this field.
2. If you are depositing currency (paper bills), write the total amount here.
3. If you are depositing coins, write the total amount here.
4. If you are depositing a check, write the bank transit number here, which is the top portion of the two-part number printed in the upper corner of the check.
5. Write the amount of the check here.
6. If you are depositing more checks than can be listed on the front, continue to list them on the back, and write the total amount of the checks on back here.
7. Write the total amount you are depositing here.
8. If you are making a deposit inside a bank with a teller and you want to receive cash back from your deposit, write the amount you want in this field.
9. Write the total amount (less cash back) of your deposit in this field.

## (a) Keeping a Running Balance: Check Transaction

CHECK NO.	DATE	DESCRIPTION	TRANSACTION AMOUNT		DEPOSIT AMOUNT	BALANCE	
						366	97
161	6/4	Sound Out	216	30		216	30
		new tape deck				150	67

## (b) Keeping a Running Balance: Check Cards

CHECK NO.	DATE	DESCRIPTION	TRANSACTION AMOUNT		DEPOSIT AMOUNT	BALANCE	
						366	97
161	6/4	Sound Out	216	30		216	30
		new tape deck				150	67
ATM	6/18	withdrawal	35	00		35	00
		spending money				115	67
ChkOrd	6/18	check card	55	00		55	00
		Foodland groceries				60	67



# Reconciling a Checking Account

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**step 1:** Obtain the current balance from your bank statement.

**step 2:** Add any deposits that you have recorded in your check register or spreadsheet but that are not on this statement.

**step 3:** Subtract any outstanding checks (checks you have written but that have not yet cleared the banking system).

**step 4:** Compare the result with the current balance in your spreadsheet.

**Note:**

The balance in your spreadsheet should be adjusted to include: (a) deductions for service fees or other charges; (b) additions for direct deposits and interest earned.

# Reading a Bank Statement

## THIS STATEMENT COVERS

6/1/18 through 6/30/18

<b>CHECKING ACCOUNT</b> 0471-678	<b>Previous Statement Balance</b> On 6/1/18	\$612.04
	<b>Total of 3 Deposits For</b>	\$3,421.18
	<b>Total of 10 Withdrawals For</b>	\$1,754.59
	<b>New Balance</b>	\$2,278.63

## TRANSACTION HISTORY | CHECKS & OTHER DEBITS

DATE PAID	CHECK #	DESCRIPTION	Deposits/Credits	Withdrawals/Debits	Ending Daily Balance
6/4	161			\$216.30	\$395.74
6/5	164			\$26.31	\$369.43
6/9		Withdrawal #29848 at ATM		\$200.00	\$169.43
6/14	165			\$10.00	\$159.43
6/15		Mobile Deposit	\$1,235.18		\$1,394.61
6/18		DebitCrd		\$55.00	\$1,339.61
6/18		Withdrawal #00281 at ATM #423A		\$35.00	\$1,304.61
6/19		Transfer from 4039-557 at ATM #423C	\$1,200.00		\$2,504.61
6/24	162			\$82.87	\$2,421.74
6/26	163			\$1,000.00	\$1,421.74
6/26		DebitCrd		\$54.11	\$1,367.63
6/27		Withdrawal #08744 at ATM #430E		\$20.00	\$1,347.63
6/27	166	Lawn Wranglers		\$55.00	\$1,292.63
6/30		ACH Deposit	\$986.00		\$2,278.63
			<b>\$3,421.18</b>	<b>\$1,754.59</b>	<b>\$2,278.63</b>

## ATM LOCATIONS USED

423A: 2500 Main Street, Anytown, USA  
423E: 945 Hamilton Avenue, Big City, USA

# Electronic Banking Services

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**direct deposit...** earnings (or government payments) automatically deposited into bank accounts, saving time, effort, and money.

**automatic payments...** utility companies, loan payments, and other businesses use an automatic payment system with bills paid through direct withdrawal from a bank account.

**automatic teller machines...** allow customers to obtain cash and conduct banking transactions; some ATMs sell bus passes, postage stamps, gift certificates, and mutual funds.

**point-of-sale transactions...** acceptance of ATM/debit card at retail stores and restaurants for payment of goods and services.

**stored-value cards...** prepaid cards for telephone service, transit fares, highway tolls, laundry service, library fees, and school lunches.

**electronic cash...** companies are developing electronic replicas of all existing payment systems—cash, check, credit cards, and coins.

**online banking...** banking through online services. Bank websites allow customers to check balances, pay bills, transfer funds, compare savings plans, and apply for loans online.

**mobile banking...** 24/7 account access, cashless payments, mobile account alerts, check deposit, fund transfers, bill pay.

**cashless transactions**, include those made via digital wallets, payment-enabled phone, smart card, wearable like a smart watch and online payment systems for transactions. They serve as an electronic alternative to checks and cash.

- convenient, safe and fast way to pay
- you tap your card or device at a checkout terminal, your card is scanned and you get confirmation the transaction is complete via a beep, checkmark or green light
- more and more stores are beginning to accept cashless forms of payment
- smart technology and its uses for banking are constantly expanding