

Multi-Digit Addition

Add each place, starting with the ones. Regroup when you need to.

Add by place value. Then add the parts to find the sum.

Example

$3,456 + 2,378$

$3,000 + 2,000 = 5,000$

$400 + 300 = 700$

$50 + 70 = 120$

$6 + 8 = 14$

$\text{Add the parts: } 5,834$

$1. \quad 4,785 + 3,649$

$4,000 + 3,000 = \underline{\hspace{2cm}}$

$700 + 600 = \underline{\hspace{2cm}}$

$80 + 40 = \underline{\hspace{2cm}}$

$5 + 9 = \underline{\hspace{2cm}}$

$\text{Add the parts: } \underline{\hspace{2cm}}$

Add. Write regrouped digits in the small boxes.

Example

	TTh	Th	H	T	O
		1	1	1	
		2	7	4	8
+		3	5	8	6
		6	3	3	4

2.

	TTh	Th	H	T	O
		5	2	6	7
+		1	9	5	8

3.

	TTh	Th	H	T	O
		6	4	9	3
+		4	8	7	9

4.

	TTh	Th	H	T	O
		3	8	0	5
+		2	6	9	7

5.

	TTh	Th	H	T	O
		2	4	3	6
+		1	5	9	4

6.

	TTh	Th	H	T	O
		3	6	0	9
+		2	8	5	6

7.

	TTh	Th	H	T	O
		4	7	8	1
+		3	9	4	5

8.

	TTh	Th	H	T	O
		5	2	6	7
+		8	7	4	6

9.

	TTh	Th	H	T	O
		6	3	4	0
+		2	7	5	9

Multi-Digit Addition

Add numbers up to 1,000,000. Line up the places first.

Add. Write regrouped digits in the small boxes.

Example

	M	HTh	TTh	Th	H	T	O
			1		1		1
		2	6	3	4	5	8
+		1	4	5	9	3	7
		4	0	9	3	9	5

1.

	M	HTh	TTh	Th	H	T	O
		3	8	6	4	5	7
+		2	4	8	9	7	6

2.

	M	HTh	TTh	Th	H	T	O
		5	0	7	8	4	9
+		2	9	6	3	6	5

3.

	M	HTh	TTh	Th	H	T	O
		4	3	8	9	2	6
+		5	6	1	0	7	4

4.

	M	HTh	TTh	Th	H	T	O
		1	7	2	5	8	4
+		6	0	9	7	3	8

5.

	M	HTh	TTh	Th	H	T	O
		6	5	4	1	9	0
+		2	8	7	8	5	6

Write each problem in the grid. Line up the places. Then add.

Example

$$45,208 + 9,876$$

			1	1		1
		4	5	2	0	8
+			9	8	7	6
		5	5	0	8	4

6. $12,450 + 3,875 + 806$

+						

Add in an easier order: first add the two that make a round number.

Example

$$2,375 + 4,980 + 625$$

$$= (\underline{2,375} + \underline{625}) + \underline{4,980}$$

$$= \underline{3,000} + \underline{4,980}$$

$$= \underline{7,980}$$

7. $248,300 + 119,250 + 1,700$

$$= (\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) + \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

Multi-Digit Subtraction

Subtract each place, starting with the ones. Regroup when you need to.

Subtract. Write the regrouped digits in the small boxes.

Example

HTh	TTh	Th	H	T	O
		6	13	4	12
		~~7~~	~~3~~	~~5~~	~~2~~
-		2	8	1	6
		4	5	3	6

1.

HTh	TTh	Th	H	T	O
		8	1	4	3
-		3	6	7	5

2.

HTh	TTh	Th	H	T	O
		9	2	6	4
-		4	5	8	7

3.

HTh	TTh	Th	H	T	O
		5	3	4	8
-		2	7	6	5

4.

HTh	TTh	Th	H	T	O
		7	2	3	1
-		3	8	7	4

5.

HTh	TTh	Th	H	T	O
		8	4	1	6
-		5	9	3	8

6.

HTh	TTh	Th	H	T	O
		4	5	2	3
-		1	7	8	5

7.

HTh	TTh	Th	H	T	O
		6	3	1	2
-		2	9	6	5

8.

HTh	TTh	Th	H	T	O
		9	1	5	4
-		4	8	7	6

Count up to subtract: jump to the next thousand, then to the top number.

Example

$$8,215 - 3,975$$

$$3,975 + 25 = 4,000$$

$$4,000 + 4,215 = 8,215$$

$$8,215 - 3,975 = 4,240$$

9. $7,302 - 2,986$

$$2,986 + \underline{\hspace{2cm}} = 3,000$$

$$3,000 + \underline{\hspace{2cm}} = 7,302$$

$$7,302 - 2,986 = \underline{\hspace{2cm}}$$

Multi-Digit Subtraction

Regroup across zeros. Then add to check your answer.

Subtract. Then check: add your answer and the number you took away.

Example

Subtract

	3	9	9	9	10
	~~4~~	~~0~~	~~0~~	~~0~~	~~0~~
-	1	2	3	4	5
	2	7	6	5	5

Check

	1	1	1	1	
	2	7	6	5	5
+	1	2	3	4	5
	4	0	0	0	0

1.

Subtract

	7	0	0	0	
-	2	4	6	8	

Check

+	2	4	6	8	

2.

Subtract

	3	0	5	0	6
-	1	4	7	2	9

Check

+	1	4	7	2	9

3.

Subtract

	8	0	0	6	0
-	3	5	4	8	7

Check

+	3	5	4	8	7

Find the mistake. Tell what went wrong. Write the right answer.

Example

		5	0	0	4
-		2	3	1	7
		3	3	1	3

Right answer:

2,687

It took the smaller digit from the bigger one in each place instead of regrouping.

4.

	6	0	3	0	0
-	2	4	1	7	5
	4	6	1	2	5

Right answer:

5. Why does adding check a subtraction? Use a problem above to explain.

Addition and Subtraction

Estimate first. Then solve, and check that your answer makes sense.

Round each number to its greatest place. Is the answer reasonable?

Example

$$38,472 + 26,815 = 65,287$$

Reasonable?

Yes

No

$$\text{Estimate: } 40,000 + 30,000 = 70,000$$

1. $52,316 - 18,704 = 43,612$

Reasonable?

Yes

No

$$\text{Estimate: } \underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2. $406,250 + 287,940 = 594,190$

Reasonable?

Yes

No

$$\text{Estimate: } \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3. $731,605 - 248,390 = 483,215$

Reasonable?

Yes

No

$$\text{Estimate: } \underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Estimate first. Then solve. Show your work.

4. A stadium sold 48,265 tickets on Friday and 39,870 on Saturday. How many did it sell in all?

Estimate: _____

_____ tickets

5. A park had 625,400 visitors last year and 589,150 this year. How many fewer came this year?

Estimate: _____

_____ visitors

6. A library had 12,480 books. It bought 1,365 and gave away 870. How many books does it have now?

Estimate: _____

_____ books

7. A farm had 254,300 pounds of apples. It sold 118,650 pounds, then 47,925 more. How many are left?

Estimate: _____

_____ pounds

Multi-Digit Addition

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Add by place value. Then add the parts to find the sum.

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$3,456 + 2,378$

$3,000 + 2,000 = 5,000$

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$\text{Add the parts: } 5,834$

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+		3	5	8	6
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+		1	4	5	9	3	7
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1.

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		3	8	6	4	5	7
+		2	4	8	9	7	6

2.

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		5	0	7	8	4	9
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Write each problem in the grid. Line up the places. Then add.

Example $45,208 + 9,876$

	M	HTh	TTh	Th	H	T	O
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6. $12,450 + 3,875 + 806$

	M	HTh	TTh	Th	H	T	O
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Add in an easier order: first add the two that make a round number.

Example $2,375 + 4,980 + 625$

$= (\underline{2,375} + \underline{625}) + \underline{4,980}$

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$= (\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) + \underline{\hspace{2cm}}$

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Multi-Digit Subtraction

Subtract each place, starting with the ones. Regroup when you need to.

Subtract. Write the regrouped digits in the small boxes.

Example

	HTh	TTh	Th	H	T	O
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			~~7~~	~~3~~	~~5~~	~~2~~
-			2	8	1	6
			4	5	3	6

1.

	HTh	TTh	Th	H	T	O
			8	1	4	3
-			3	6	7	5

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-			3	8	7	4

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Subtract

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	~~4~~	~~0~~	~~0~~	~~0~~	~~0~~
-	1	2	3	4	5
	2	7	6	5	5

Check

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	2	7	6	5	5
+	1	2	3	4	5
	4	0	0	0	0

1.

Subtract

	7	0	0	0	
-	2	4	6	8	

Check

+	2	4	6	8	

2.

Subtract

	3	0	5	0	6
-	1	4	7	2	9

Check

+	1	4	7	2	9

3.

Subtract

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-	3	5	4	8	7

Check

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Find the mistake. Tell what went wrong. Write the right answer.

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Right answer:

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It took the smaller digit from the bigger one in each place instead of regrouping.

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_____ books

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$50 + 70 = 120$

$6 + 8 = 14$

$\text{Add the parts: } 5,834$

$1. \quad 4,785 + 3,649$

$4,000 + 3,000 = 7,000$

$700 + 600 = 1,300$

$80 + 40 = 120$

$5 + 9 = 14$

$\text{Add the parts: } 8,434$

Add. Write regrouped digits in the small boxes.

Example

	TTh	Th	H	T	O
		1	1	1	
		2	7	4	8
+		3	5	8	6
		6	3	3	4

2.

	TTh	Th	H	T	O
		1	1	1	
		5	2	6	7
+		1	9	5	8
		7	2	2	5

3.

	TTh	Th	H	T	O
		1	1	1	
		6	4	9	3
+		4	8	7	9
		1	1	3	7

4.

	TTh	Th	H	T	O
		1	1	1	
		3	8	0	5
+		2	6	9	7
		6	5	0	2

5.

	TTh	Th	H	T	O
		1	1	1	1
		2	4	3	6
+		1	5	9	4
		4	0	3	1

6.

	TTh	Th	H	T	O
		1		1	1
		3	6	0	9
+		2	8	5	6
		6	4	6	1

7.

	TTh	Th	H	T	O
		1	1		1
		4	7	8	1
+		3	9	4	5
		8	7	2	7

8.

	TTh	Th	H	T	O
		1	1	1	1
		5	2	6	7
+			8	7	4
		6	1	4	2

9.

	TTh	Th	H	T	O
		1	1	1	1
		6	3	4	0
+		2	7	5	9
		9	1	0	0

Multi-Digit Addition

Add numbers up to 1,000,000. Line up the places first.

Add. Write regrouped digits in the small boxes.

Example

	M	HTh	TTh	Th	H	T	O
			1		1		1
		2	6	3	4	5	8
+		1	4	5	9	3	7
		4	0	9	3	9	5

1.

	M	HTh	TTh	Th	H	T	O
			1	1	1	1	1
		3	8	6	4	5	7
+		2	4	8	9	7	6
		6	3	5	4	3	3

2.

	M	HTh	TTh	Th	H	T	O
			1	1	1	1	1
		5	0	7	8	4	9
+		2	9	6	3	6	5
		8	0	4	2	1	4

3.

	M	HTh	TTh	Th	H	T	O
			1	1	1	1	1
		4	3	8	9	2	6
+		5	6	1	0	7	4
	1	0	0	0	0	0	0

4.

	M	HTh	TTh	Th	H	T	O
				1	1	1	1
		1	7	2	5	8	4
+		6	0	9	7	3	8
		7	8	2	3	2	2

5.

	M	HTh	TTh	Th	H	T	O
			1	1	1	1	
		6	5	4	1	9	0
+		2	8	7	8	5	6
		9	4	2	0	4	6

Write each problem in the grid. Line up the places. Then add.

Example

$$45,208 + 9,876$$

	M	HTh	TTh	Th	H	T	O
			1	1			1
		4	5	2	0	8	
+				9	8	7	6
		5	5	0	8	4	

6. $12,450 + 3,875 + 806$

	M	HTh	TTh	Th	H	T	O
				2	1		1
		1	2	4	5	0	
			3	8	7	5	
+				8	0	6	
		1	7	1	3	1	

Add in an easier order: first add the two that make a round number.

Example

$$2,375 + 4,980 + 625$$

$$\begin{aligned} &= (\underline{2,375} + \underline{625}) + \underline{4,980} \\ &= \underline{3,000} + \underline{4,980} \\ &= \underline{7,980} \end{aligned}$$

7. $248,300 + 119,250 + 1,700$

$$\begin{aligned} &= (\underline{248,300} + \underline{1,700}) + \underline{119,250} \\ &= \underline{250,000} + \underline{119,250} \\ &= \underline{369,250} \end{aligned}$$

Multi-Digit Subtraction

Subtract each place, starting with the ones. Regroup when you need to.

Subtract. Write the regrouped digits in the small boxes.

Example

	HTh	TTh	Th	H	T	O
			6	13	4	12
			~~7~~	~~3~~	~~5~~	~~2~~
-			2	8	1	6
			4	5	3	6

1.

	HTh	TTh	Th	H	T	O
			7	10	13	13
			~~8~~	~~1~~	~~4~~	~~3~~
-			3	6	7	5
			4	4	6	8

2.

	HTh	TTh	Th	H	T	O
			8	11	15	14
			~~9~~	~~2~~	~~6~~	~~4~~
-			4	5	8	7
			4	6	7	7

3.

	HTh	TTh	Th	H	T	O
			4	12	14	7
			~~5~~	~~3~~	~~4~~	~~8~~
-			2	7	6	5
			2	5	8	2

4.

	HTh	TTh	Th	H	T	O
			6	11	12	10
			~~7~~	~~2~~	~~3~~	~~1~~
-			3	8	7	4
			3	3	5	6

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	HTh	TTh	Th	H	T	O
			7	13	10	15
			~~8~~	~~4~~	~~1~~	~~6~~
-			5	9	3	8
			2	4	7	8

6.

	HTh	TTh	Th	H	T	O
			3	14	11	12
			~~4~~	~~5~~	~~2~~	~~3~~
-			1	7	8	5
			2	7	3	7

7.

	HTh	TTh	Th	H	T	O
			5	12	10	12
			~~6~~	~~3~~	~~1~~	~~2~~
-			2	9	6	5
			3	3	4	7

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	HTh	TTh	Th	H	T	O
			8	10	14	13
			~~9~~	~~1~~	~~5~~	~~4~~
-			4	8	7	6
			4	2	7	7

Count up to subtract: jump to the next thousand, then to the top number.

Example

$$8,215 - 3,975$$

$$3,975 + 25 = 4,000$$

$$4,000 + 4,215 = 8,215$$

$$8,215 - 3,975 = 4,240$$

$$9. \quad 7,302 - 2,986$$

$$2,986 + 14 = 3,000$$

$$3,000 + 4,302 = 7,302$$

$$7,302 - 2,986 = 4,316$$

Multi-Digit Subtraction

Regroup across zeros. Then add to check your answer.

Subtract. Then check: add your answer and the number you took away.

Example

Subtract					Check						
	3	9	9	9	10		1	1	1	1	
	~~4~~	~~0~~	~~0~~	~~0~~	~~0~~		2	7	6	5	5
-	1	2	3	4	5	+	1	2	3	4	5
	2	7	6	5	5		4	0	0	0	0

1.

Subtract					Check					
	6	9	9	9	10		1	1	1	
	~~7~~	~~0~~	~~0~~	~~0~~			4	5	3	2
-	2	4	6	8		+	2	4	6	8
	4	5	3	2			7	0	0	0

2.

Subtract					Check						
	2	9	14	9	16		1	1	1	1	
	~~3~~	~~0~~	~~5~~	~~0~~	~~6~~		1	5	7	7	7
-	1	4	7	2	9	+	1	4	7	2	9
	1	5	7	7	7		3	0	5	0	6

3.

Subtract					Check						
	7	9	9	15	10		1	1	1	1	
	~~8~~	~~0~~	~~0~~	~~6~~	~~0~~		4	4	5	7	3
-	3	5	4	8	7	+	3	5	4	8	7
	4	4	5	7	3		8	0	0	6	0

Find the mistake. Tell what went wrong. Write the right answer.

Example

		5	0	0	4	Right answer: <u>2,687</u>
-		2	3	1	7	
		3	3	1	3	

It took the smaller digit from the bigger one in each place instead of regrouping.

4.

	6	0	3	0	0	Right answer: <u>36,125</u>
-	2	4	1	7	5	
	4	6	1	2	5	

Sample answer: After regrouping, the 6 ten thousands should be a 5.

5. Why does adding check a subtraction? Use a problem above to explain.

Sample answer: Subtracting takes a part away. Adding that part back to the answer gives the whole again: $27,655 + 12,345 = 40,000$.

Addition and Subtraction

Estimate first. Then solve, and check that your answer makes sense.

Round each number to its greatest place. Is the answer reasonable?

Example

$$38,472 + 26,815 = 65,287$$

Reasonable?

Yes

No

$$\text{Estimate: } 40,000 + 30,000 = 70,000$$

1. $52,316 - 18,704 = 43,612$

Reasonable?

Yes

No

$$\text{Estimate: } 50,000 - 20,000 = 30,000$$

2. $406,250 + 287,940 = 594,190$

Reasonable?

Yes

No

$$\text{Estimate: } 400,000 + 300,000 = 700,000$$

3. $731,605 - 248,390 = 483,215$

Reasonable?

Yes

No

$$\text{Estimate: } 700,000 - 200,000 = 500,000$$

Estimate first. Then solve. Show your work.

4. A stadium sold 48,265 tickets on Friday and 39,870 on Saturday. How many did it sell in all?

$$\text{Estimate: } 48,000 + 40,000 = 88,000$$

88,135 tickets

5. A park had 625,400 visitors last year and 589,150 this year. How many fewer came this year?

$$\text{Estimate: } 630,000 - 590,000 = 40,000$$

36,250 visitors

6. A library had 12,480 books. It bought 1,365 and gave away 870. How many books does it have now?

$$\text{Estimate: } 12,500 + 1,400 - 900 = 13,000$$

12,975 books

7. A farm had 254,300 pounds of apples. It sold 118,650 pounds, then 47,925 more. How many are left?

$$\text{Estimate: } 254,000 - 119,000 - 48,000 = 87,000$$

87,725 pounds