

5. [Large Number +,-]

Skill 5.1 Subtracting large numbers without carry over.

MM7 1 1 2 2 3 3 4 4
MM8 1 1 2 2 3 3 4 4

When subtracting large numbers always keep your working columns in line so that the units for example, always stay in the units column. Work from right to left.

Q. $215 - 103 =$

A.
$$\begin{array}{r} 215 \\ - 103 \\ \hline 112 \end{array}$$

hundreds
tens
units

The digits in the units column are subtracted first:
 $5 - 3 = 2$ units.

Then subtract the digits in the tens column:
 $1 - 0 = 1$ group of ten.

Finally subtract the digits in the hundreds column:
 $2 - 1 = 1$ group of one hundred.

a) $405 - 103 =$

$$\begin{array}{r} 405 \\ - 103 \\ \hline 302 \end{array}$$

b) $679 - 24 =$

$$\begin{array}{r} 679 \\ - 24 \\ \hline \end{array}$$

c) $2293 - 171 =$

$$\begin{array}{r} 2293 \\ - 171 \\ \hline \end{array}$$

d) $5461 - 200 =$

$$\begin{array}{r} 5461 \\ - 200 \\ \hline \end{array}$$

e) $749 - 221 =$

$$\begin{array}{r} 749 \\ - 221 \\ \hline \end{array}$$

f) $955 - 33 =$

$$\begin{array}{r} 955 \\ - 33 \\ \hline \end{array}$$

g) $6577 - 243 =$

$$\begin{array}{r} 6577 \\ - 243 \\ \hline \end{array}$$

h) $8709 - 504 =$

$$\begin{array}{r} 8709 \\ - 504 \\ \hline \end{array}$$

i) $5028 - 3018 =$

$$\begin{array}{r} 5028 \\ - 3018 \\ \hline \end{array}$$

j) $7695 - 4205 =$

$$\begin{array}{r} 7695 \\ - 4205 \\ \hline \end{array}$$

k) $18596 - 4264 =$

$$\begin{array}{r} 18596 \\ - 4264 \\ \hline \end{array}$$

l) $5967 - 1412 =$

$$\begin{array}{r} 5967 \\ - 1412 \\ \hline \end{array}$$

m) $4319 - 117 =$

$$\begin{array}{r} 4319 \\ - 117 \\ \hline \end{array}$$

n) $6087 - 1036 =$

$$\begin{array}{r} 6087 \\ - 1036 \\ \hline \end{array}$$

o) $15720 - 4710 =$

$$\begin{array}{r} 15720 \\ - 4710 \\ \hline \end{array}$$

p) $3452 - 401 =$

$$\begin{array}{r} 3452 \\ - 401 \\ \hline \end{array}$$

When adding large numbers always keep your working columns in line so that the units for example, always stay in the units column. Work from right to left.

Q. $365 + 514 =$

A.

3	6	5
+ 5	1	4
8	7	9

hundreds
tens
units

The digits in the units column are added first:
 $5 + 4 = 9$ units.

Then add the digits in the tens column:
 $6 + 1 = 7$ groups of ten.

Finally add the digits in the hundreds column:
 $3 + 5 = 8$ groups of one hundred.

a) $315 + 284 =$

3	1	5
+ 2	8	4
5	9	9

b) $670 + 29 =$

6	7	0
+ 2	9	
.....

c) $1182 + 316 =$

1	1	8	2
+ 3	1	6	
.....

d) $7516 + 400 =$

7	5	1	6
+ 4	0	0	
.....

e) $413 + 326 =$

4	1	3
+ 3	2	6
.....

f) $528 + 40 =$

5	2	8
+ 4	0	
.....

g) $2143 + 625 =$

2	1	4	3
+ 6	2	5	
.....

h) $6003 + 2421 =$

6	0	0	3
+ 2	4	2	1
.....

i) $2235 + 530 =$

2	2	3	5
+ 5	3	0	
.....

j) $5870 + 124 =$

5	8	7	0
+ 1	2	4	
.....

k) $2604 + 7300 =$

2	6	0	4
+ 7	3	0	0
.....

l) $8264 + 1731 =$

8	2	6	4
+ 1	7	3	1
.....

m) $4782 + 4203 =$

4	7	8	2
+ 4	2	0	3
.....

n) $3008 + 6910 =$

3	0	0	8
+ 6	9	1	0
.....

o) $2235 + 7542 =$

2	2	3	5
+ 7	5	4	2
.....

p) $3052 + 947 =$

3	0	5	2
+ 9	4	7	
.....

When subtracting large numbers always keep your working columns in line so that the units for example, always stay in the units column. Work from right to left.

Q. $571 - 325 =$

A.
$$\begin{array}{r} \overset{6}{\cancel{5}} \overset{1}{\cancel{7}} 1 \\ - 325 \\ \hline 246 \end{array}$$

hundreds tens units

The digits in the units column are subtracted first:
 $1 - 5 = ?$
 To make this possible break the 7 groups of ten into 6 groups of ten and 1 group of ten units. Add the 10 units to the 1 unit to make 11 units.
 Now in the units column: $11 - 5 = 6$ units.
 Subtract the tens: $6 - 2 = 4$ groups of ten.
 Subtract the hundreds: $5 - 3 = 2$ groups of one hundred.

a) $436 - 127 =$

$$\begin{array}{r} \overset{2}{\cancel{4}} \overset{1}{\cancel{3}} 6 \\ - 127 \\ \hline 309 \end{array}$$

b) $500 - 25 =$

$$\begin{array}{r} \overset{4}{\cancel{5}} \overset{9}{\cancel{0}} 0 \\ - 25 \\ \hline 475 \end{array}$$

c) $3452 - 107 =$

$$\begin{array}{r} 3452 \\ - 107 \\ \hline \end{array}$$

d) $2005 - 605 =$

$$\begin{array}{r} 2005 \\ - 605 \\ \hline \end{array}$$

e) $555 - 188 =$

$$\begin{array}{r} \overset{4}{\cancel{5}} \overset{1}{\cancel{5}} 5 \\ - 188 \\ \hline \end{array}$$

f) $900 - 54 =$

$$\begin{array}{r} 900 \\ - 54 \\ \hline \end{array}$$

g) $51000 - 7436 =$

$$\begin{array}{r} 51000 \\ - 7436 \\ \hline \end{array}$$

h) $44200 - 10589 =$

$$\begin{array}{r} 44200 \\ - 10589 \\ \hline \end{array}$$

i) $5022 - 308 =$

$$\begin{array}{r} 5022 \\ - 308 \\ \hline \end{array}$$

j) $1374 - 865 =$

$$\begin{array}{r} 1374 \\ - 865 \\ \hline \end{array}$$

k) $3576 - 948 =$

$$\begin{array}{r} 3576 \\ - 948 \\ \hline \end{array}$$

l) $7384 - 2657 =$

$$\begin{array}{r} 7384 \\ - 2657 \\ \hline \end{array}$$

m) $4276 - 1609 =$

$$\begin{array}{r} 4276 \\ - 1609 \\ \hline \end{array}$$

n) $8000 - 7005 =$

$$\begin{array}{r} 8000 \\ - 7005 \\ \hline \end{array}$$

o) $30000 - 96 =$

$$\begin{array}{r} 30000 \\ - 96 \\ \hline \end{array}$$

p) $38241 - 27275 =$

$$\begin{array}{r} 38241 \\ - 27275 \\ \hline \end{array}$$

Skill 5.4 Adding two large numbers with carry over.

When adding large numbers always keep your working columns in line so that the units for example, always stay in the units column. Work from right to left.

Q. $729 + 253 =$

A.

$$\begin{array}{r}
 7 \overset{1}{2} 9 \\
 + 2 5 3 \\
 \hline
 9 8 2 \\
 \hline
 \end{array}$$

hundreds
tens
units

The digits in the units column are added first:
 $9 + 3 = 12$ units or 1 ten and 2 units. Write the 2 in the units column and "carry" the ten to the tens column.

In the tens column: $2 + 5 + 1 = 8$ groups of ten.

In the hundreds column: $7 + 2 = 9$ groups of one hundred.

a) $127 + 436 =$

$$\begin{array}{r}
 1 \overset{1}{2} 7 \\
 + 4 3 6 \\
 \hline
 5 6 3 \\
 \hline
 \end{array}$$

b) $509 + 29 =$

$$\begin{array}{r}
 5 0 9 \\
 + 2 9 \\
 \hline
 \dots \dots \dots \\
 \hline
 \end{array}$$

c) $2016 + 489 =$

$$\begin{array}{r}
 2 0 1 6 \\
 + 4 8 9 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

d) $8864 + 236 =$

$$\begin{array}{r}
 8 8 6 4 \\
 + 2 3 6 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

e) $278 + 153 =$

$$\begin{array}{r}
 2 7 8 \\
 + 1 5 3 \\
 \hline
 \dots \dots \dots \\
 \hline
 \end{array}$$

f) $906 + 94 =$

$$\begin{array}{r}
 9 0 6 \\
 + 9 4 \\
 \hline
 \dots \dots \dots \\
 \hline
 \end{array}$$

g) $4923 + 8697 =$

$$\begin{array}{r}
 4 9 2 3 \\
 + 8 6 9 7 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

h) $15086 + 6914 =$

$$\begin{array}{r}
 1 5 0 8 6 \\
 + 6 9 1 4 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

i) $6079 + 2422 =$

$$\begin{array}{r}
 6 0 7 9 \\
 + 2 4 2 2 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

j) $7634 + 3191 =$

$$\begin{array}{r}
 7 6 3 4 \\
 + 3 1 9 1 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

k) $6250 + 780 =$

$$\begin{array}{r}
 6 2 5 0 \\
 + 7 8 0 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

l) $82534 + 2326 =$

$$\begin{array}{r}
 8 2 5 3 4 \\
 + 2 3 2 6 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

m) $3015 + 467 =$

$$\begin{array}{r}
 3 0 1 5 \\
 + 4 6 7 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

n) $8752 + 1248 =$

$$\begin{array}{r}
 8 7 5 2 \\
 + 1 2 4 8 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

o) $8835 + 1246 =$

$$\begin{array}{r}
 8 8 3 5 \\
 + 1 2 4 6 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

p) $29755 + 5174 =$

$$\begin{array}{r}
 2 9 7 5 5 \\
 + 5 1 7 4 \\
 \hline
 \dots \dots \dots \dots \\
 \hline
 \end{array}$$

When adding and subtracting multiple large numbers, work from left to right.

Q. $248 + 330 + 165 =$

A.
$$\begin{array}{r} ^1 ^1 \\ 248 \\ + 330 \\ + 165 \\ \hline 743 \\ \hline \end{array}$$

hundreds
tens
units

The digits in the units column are added first:
 $8 + 0 + 5 = 13$ units or 1 ten and 3 units. Write the 3 in the units column and "carry" the ten to the tens column.
 In the tens column: $4 + 3 + 6 + 1 = 14$ groups of ten. Write the 4 in the tens column and "carry" the hundred to the hundreds column.
 In the hundreds column: $2 + 3 + 1 + 1 = 7$ groups of one hundred.

Q. $2000 + 6000 - 4523 =$

A.
$$\begin{array}{r} 2000 \\ + 6000 \\ \hline 8000 \\ \hline ^7 ^9 ^9 \\ \cancel{8} \cancel{0} \cancel{0} ^1 \\ - 4523 \\ \hline 3477 \\ \hline \end{array}$$

First do the addition: $2000 + 6000 = 8000$
 Then subtract 4523 from 8000.
 "Borrow" one thousand and break it into:
 9 groups of one hundred (900)
 9 groups of ten (90)
 1 group of 10 (10) } 1000
 1 group of ten is added to the 0 units to make 10 units.
 Now in the units column: $10 - 3 = 7$ units.
 Subtract the tens: $9 - 2 = 7$ groups of ten.
 Subtract the hundreds: $9 - 5 = 4$ groups of one hundred.
 Subtract the thousands: $7 - 4 = 3$ groups of one thousand.

a) $206 + 83 + 470 =$

$$\begin{array}{r} ^1 \\ 206 \\ + 83 \\ + 470 \\ \hline 759 \\ \hline \end{array}$$

b) $3155 + 420 + 2079 =$

$$\begin{array}{r} 3155 \\ + 420 \\ + 2079 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

c) $1016 + 3422 + 4586 =$

$$\begin{array}{r} 1016 \\ + 3422 \\ + 4586 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

d) $28 + 157 + 63 + 850 =$

$$\begin{array}{r} 28 \\ + 157 \\ + 63 \\ + 850 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

e) $634 + 75 + 508 + 129 =$

$$\begin{array}{r} 634 \\ + 75 \\ + 508 \\ + 129 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

f) $2831 + 59 + 420 + 14 =$

$$\begin{array}{r} 2831 \\ + 59 \\ + 420 \\ + 14 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

g) $324 + 1076 - 851 =$

$$\begin{array}{r} ^1 ^1 \\ 324 \\ + 1076 \\ \hline 1400 \\ \hline ^1 ^3 ^9 \\ \cancel{1} \cancel{4} \cancel{0} ^1 \\ - 851 \\ \hline 549 \\ \hline \end{array}$$

h) $4258 + 613 - 2027 =$

$$\begin{array}{r} ^1 \\ 4258 \\ + 613 \\ \hline \dots\dots\dots 71 \\ \hline \dots\dots\dots \\ - 2027 \\ \hline \dots\dots\dots \\ \hline \end{array}$$

i) $5000 + 12000 - 8064 =$

$$\begin{array}{r} 5000 \\ + 12000 \\ \hline \dots\dots\dots \\ \hline \dots\dots\dots \\ - 8064 \\ \hline \dots\dots\dots \\ \hline \end{array}$$