

Subtraction Without Borrowing

Subtract any two numbers without any borrowing by using the *Nine's Complement* approach with addition.

1. Choose the greater number to complement. If the greater number is the Subtrahend, the answer will be *negative*.
2. Calculate the *Nine's Complement* of the greater number, digit-by-digit, by subtracting each digit from nine (**9 – each digit**).
3. Add the *Nine's Complement* of the greater number to the lesser number.
4. Calculate the *Nine's Complement* of the added result for the answer. Remember that the answer will be negative if the *Nine's Complement* was calculated on the original Subtrahend.

Digits	0	1	2	3	4	5	6	7	8	9
Nine's Complement	9	8	7	6	5	4	3	2	1	0

Examples (*Nine's Complements are highlighted*):

17522 – 16859 (Minuend is greater)

82477 + 16859 = 99336

99336 = **00663** = 663 (Answer)

32958 – 72719 (Subtrahend is greater)

32958 + **27280** = 60238

60238 = **39761** = -39761 (Answer)

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Subtraction Without Borrowing

Minuend, ≤50 digits: 9751715373135132755
-Subtrahend, ≤50 digits: 4311353711757545474

          Digits:      0  1  2  3  4  5  6  7  8  9
    Nine's Complements: 9  8  7  6  5  4  3  2  1  0

0248284626864867244 (Complement of Minuend)
4311353711757545474
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4559638338622412718 (Sum)

5440361661377587281 (Answer, Complement of Sum)

Hit <Any> Key To Restart

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Subtraction Without Borrowing.exe will accept up to 50 digits
 A positive answer since the Minuend was greater

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Subtraction Without Borrowing

Minuend, ≤50 digits: 45794512425454524242249
-Subtrahend, ≤50 digits: 51315751373513715715751751

          Digits:      0  1  2  3  4  5  6  7  8  9
    Nine's Complements: 9  8  7  6  5  4  3  2  1  0

000457945124254545242249
48684248626486284284248248 (Complement of Subtrahend)
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48730043138911738808490497 (Sum)

-51269956861088261191509502 (Answer, Complement of Sum)

Hit <Any> Key To Restart

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A negative answer since the Subtrahend was greater