

Addition



2997 + 6
Bridging boundaries

3754 + 600
Add multiples of ten and a hundred

3452 + 1999
Round then adjust

Stop and Look! What do you notice? What's the most efficient way?

Add 2000 then subtract 1

If I know $7 + 6 = 13$ then...

Total difference ones tens hundreds thousands

63,452 + 19,999
Round then adjust

2,452 - 0,999
Round then adjust

40,007 - 91,999
Find the difference between two numbers

Written methods

Add 20,000 then subtract 1

Take away 1 then add 1 thousandth

Count on 8 from 19,999 to 40,000, then 7 more so the difference between them is 52

Count on 8 from 19,999 to 40,000, then 7 more so the difference between them is 52

3543 + 2312
No regrouping

3544 + 2318
Regrouping the ones

3544 + 2658
Regrouping in multiple columns

Regroup, exchange ones tens hundreds thousands

Regroup the 12 ones into 1 ten and 2 ones

If the column sum is equal to ten or more, we must regroup.

150 + 80
Bridging boundaries

325 + 200
Add multiples of ten and a hundred

234 + 199
Round then adjust

If I know $3 + 2 = 5$ then I know 3 hundreds + 2 hundreds = 5 hundreds

Add 200 then subtract 1

Total difference ones tens hundreds



348 + 224
Regrouping the ones

388 + 264
Regroup in multiple columns

76 + 388
Different numbers of digits

Line up the ones with the ones, the tens with the tens.

Regroup, exchange ones tens hundreds

In my head? With jottings? Formal written method?



35 + 20
Add multiples of ten

If I know $3 + 2$ then I also know.

37 + 19
Round then adjust

Add 20 then subtract 1

35 + 23
Partition and recombine

add each sum plus total

$35 + 23 = 23 + 35$
Addition is commutative



$5 = 5 + 0$ $5 - 0 = 5$
 $5 = 4 + 1$ $5 - 1 = 4$
 $5 = 3 + 2$ $5 - 2 = 3$
 $5 = 2 + 3$ $5 - 3 = 2$
 $5 = 1 + 4$ $5 - 4 = 1$
 $5 = 0 + 5$ $5 - 5 = 0$

$6 = 6 + 0$ $6 - 0 = 6$
 $6 = 5 + 1$ $6 - 1 = 5$
 $6 = 4 + 2$ $6 - 2 = 4$
 $6 = 3 + 3$ $6 - 3 = 3$
 $6 = 2 + 4$ $6 - 4 = 2$
 $6 = 1 + 5$ $6 - 5 = 1$
 $6 = 0 + 6$ $6 - 6 = 0$

5 is the whole
2 is a part
3 is a part

add total subtract left

$7 = 7 + 0$ $7 - 0 = 7$
 $7 = 6 + 1$ $7 - 1 = 6$
 $7 = 5 + 2$ $7 - 2 = 5$
 $7 = 4 + 3$ $7 - 3 = 4$
 $7 = 3 + 4$ $7 - 4 = 3$
 $7 = 2 + 5$ $7 - 5 = 2$
 $7 = 1 + 6$ $7 - 6 = 1$
 $7 = 0 + 7$ $7 - 7 = 0$

8 is the whole
2 is a part
6 is a part

$10 = 10 + 0$ $10 - 0 = 10$
 $10 = 9 + 1$ $10 - 1 = 9$
 $10 = 8 + 2$ $10 - 2 = 8$
 $10 = 7 + 3$ $10 - 3 = 7$
 $10 = 6 + 4$ $10 - 4 = 6$
 $10 = 5 + 5$ $10 - 5 = 5$
 $10 = 4 + 6$ $10 - 6 = 4$
 $10 = 3 + 7$ $10 - 7 = 3$
 $10 = 2 + 8$ $10 - 8 = 2$
 $10 = 1 + 9$ $10 - 9 = 1$
 $10 = 0 + 10$ $10 - 10 = 0$

10 is one part
6 is one part
4 is the whole

12 is one part
7 is one part
5 is the whole

15 is one part
7 is one part
8 is one part
15 is the whole

$17 = 17 + 0$ $17 - 0 = 17$
 $17 = 16 + 1$ $17 - 1 = 16$
 $17 = 15 + 2$ $17 - 2 = 15$
 $17 = 14 + 3$ $17 - 3 = 14$
 $17 = 13 + 4$ $17 - 4 = 13$
 $17 = 12 + 5$ $17 - 5 = 12$
 $17 = 11 + 6$ $17 - 6 = 11$
 $17 = 10 + 7$ $17 - 7 = 10$
 $17 = 9 + 8$ $17 - 8 = 9$
 $17 = 8 + 9$ $17 - 9 = 8$
 $17 = 7 + 10$ $17 - 10 = 7$
 $17 = 6 + 11$ $17 - 11 = 6$
 $17 = 5 + 12$ $17 - 12 = 5$
 $17 = 4 + 13$ $17 - 13 = 4$
 $17 = 3 + 14$ $17 - 14 = 3$
 $17 = 2 + 15$ $17 - 15 = 2$
 $17 = 1 + 16$ $17 - 16 = 1$
 $17 = 0 + 17$ $17 - 17 = 0$

5 is one part
13 is one part
18 is the whole

12 is one part
8 is one part
20 is the whole

If I know $5 + 4 = 9$ then I also know $15 + 4 = 19$

add each sum plus total

$4 + 10 = 14$
 $14 - 4 = 10$
 $4 + 9 = 13$
 $13 - 4 = 9$

I just know it

10 is one part
4 is one part
14 is the whole

10 is one part
4 is one part
14 is the whole

