

ADDING BY COLUMNS

(The units of these numbers are assumed to be the same.)

FACT 1: Arrange the same place values in columns. Add the columns of digits starting from right. Rule of regrouping applies.

The sum of 13 and 32 is 45.

	tens	ones	
	1	3	addend
+	3	2	addend
	4	5	sum

- (a) For ONES: 3 plus 2 equals 5 ONES;
- (b) For TENS: 1 plus 3 equals 4 TENS.
- (c) SUM: The sum is 45.

The sum of 53 and 29 is 82.

	1		carry-over
	5	3	addend
+	2	9	addend
	8	2	sum

- (a) For ONES: 3 plus 9 equals 12; put down 2 ONES and carry over 1 TEN;
- (b) For TENS: 1 carried over with 5, plus 2 equals 8 TENS.
- (c) SUM: The sum is 82.

The sum of 1637, 286 and 979 is

	1	2	2	
	1	6	3	7
		2	8	6
+		9	7	9
	2	9	0	2

- (a) For ONES: 7 plus 6 plus 9 equals 22; put down 2 ONES; carry over 2 TENS;
- (b) For TENS: 2 carried over with 3, plus 8 plus 7 equals 20 TENS; put down 0; carry over 2 HUNDREDS;
- (c) For HUNDREDS: 2 carried over with 6, plus 2 plus 9 equals 19 HUNDREDS; put down 9; carry over 1 THOUSAND;
- (d) For THOUSANDS: 1 carried over with 1 equals 2 THOUSANDS.

1. Add (Check your answers on a calculator).

(a)	(b)	(c)	(d)	(e)	(f)
5 4	7 8	7 5	9 9	4 5	3 3
+ 1 7	+ 4	+ 2 8	+ 3 1	+ 3 7	+ 4 7

(a)	(b)	(c)	(d)
2 7 7 3	3 7 9	7 5 9 5 3 3	8 7 2 1 5
2 7 8	2 2 1	3 6 2 8 1 1	3 5 7 3 2
+ 6 3 4	+ 5 7 3	+ 1 5 3 8 6 4	+ 5 6 3 7

2. Fill in the blanks (Check your answers on a calculator).

(a)

$$\begin{array}{r} \square \ 2 \ 2 \ \square \\ 1 \ \square \ \square \ 1 \\ \hline 3 \ 4 \ 8 \ 9 \end{array}$$

(b)

$$\begin{array}{r} 1 \ 1 \ 3 \\ 6 \ \square \ 4 \\ 1 \ 4 \ \square \\ \square \ 2 \ 6 \\ \hline \square \ 4 \ 1 \ 0 \end{array}$$

End of Lesson