Decimal Addition and Subtraction

The normal rules for the "–" and "+" operators apply. The main thing to remember is to add and subtract like from like; i.e., add hundreds to hundreds and subtract hundreds from hundreds. The easiest way to do this is to align each term of the calculation using the decimal point.

Example 3 – combined addition and subtraction

What is the sum of 13.876, -167.2, 1296 and -0.002?

Here we have both positive and negative numbers. We could use a calculator straight off:

Answer:				1	3	.	8	7	6	-
			1	6	7	.	2			
	=	-	1	5	3	.	3	2	4	+
		1	2	9	6					
	=	1	1	4	2	.	6	7	6	-
					0	.	0	0	2	
	=	1	1	4	2	.	6	7	4	

In practice we cannot easily calculate this on paper (which is what we need to learn to do); instead we have adopt a different approach. We need to:

- deal with the positive numbers first
- then the negative numbers
- and finally the subtraction

The two positive numbers are 13.876 and 1296. We add these first:

Partial answer:			1	3	.	8	7	6	+
	1	2	9	6					
=	1	3	0	9	.	8	7	8	

Next we add the negative terms. We treat -167.2 and -0.002 as "– (167.2+ 0.002)":

Partial answer:		1	6	7	.	2			+
				0	.	0	0	2	
=		1	6	7	.	2	0	2	

Finally we deal with the subtraction (don't forget the negative sign):

Answer:	1	3	0	9	.	8	7	8	-
		1	6	7	.	2	0	2	
=	1	1	4	2	.	6	7	4	

This is, of course, the same answer as before but the manual (on paper) approach is always done differently. Anything inside brackets is calculated first:

$$(13.876 + 1296) - (167.2 + 0.002)$$

If you are not sure about using brackets you should check out the lessons on "Operators"