

27. If an expression contain two or more like terms, some being positive and others negative, we must first collect all the positive terms into one positive term, then all the negative terms into one negative term, and finally combine the two remaining terms into one by the following process. Subtract the smaller *coefficient* from the greater, and set down the remainder with the sign of the greater prefixed and the common symbol attached to it.

Ex. $8x - 3x = 5x,$
 $7x - 4x + 5x - 3x = 12x - 7x = 5x,$
 $a - 2b + 5b - 4b = a + 5b - 6b = a - b.$

28. The rules for the combination of any number of like terms into one single term enable us to extend the application of the rules for Addition and Subtraction in Algebra, and we proceed to give some Examples.

ADDITION.

(1) $\begin{array}{r} a - 2b + 3c \\ 3a - 4b - 5c \\ \hline 4a - 6b - 2c \end{array}$	(2) $\begin{array}{r} 5a + 7b - 3c - 4d \\ 6a - 7b + 9c + 4d \\ \hline 11a \quad + 6c \end{array}$
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The terms containing b and d in Ex. (2) destroying one another.

(3) $\begin{array}{r} 7x - 5y + 4z \\ x + 2y - 11z \\ 3x - y + 5z \\ \hline 5x - 3y - z \\ 10x - 7y - 3z \end{array}$	(4) $\begin{array}{r} 6m - 13n + 5p \\ 8m + \quad n - 9p \\ m - \quad n - p \\ \hline m + 2n + 5p \\ 16m - 11n \end{array}$
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SUBTRACTION.

(1) $\begin{array}{r} 5a - 3b + 6c \\ 2a + 5b - 4c \\ \hline 3a - 8b + 10c \end{array}$	(2) $\begin{array}{r} 3a + 7b - 8c \\ 3a - 7b + 4c \\ \hline 14b - 12c \end{array}$
(3) $\begin{array}{r} 5a - 6b + 2c \\ 2a - 6b + 2c \\ \hline 3a \end{array}$	(4) $\begin{array}{r} x - y + z \\ x - y - z \\ \hline 2z \end{array}$
(5) $\begin{array}{r} 3x + 7y + 12z \\ 5y - 3z \\ \hline 3x + 2y + 14z \end{array}$	(6) $\begin{array}{r} 7x - 19y - 14z \\ 6x - 24y + 9z \\ \hline x + 5y - 23z \end{array}$