

found by the Rule, or by subtracting the sum of the values of the other parts from the entire quantity to be divided.

Ex. 1. Divide 40 dollars among *A*, *B*, *C*, so that their shares may be as 7, 11, and 14 respectively.

By the Rule. Sum of shares = $7 + 11 + 14 = 32$.

$\therefore 32 : 7 :: \$40 : A's\ sh.$; $32 : 11 :: \$40 : B's\ sh.$;

whence $A's\ sh. = \$8.75$, $B's\ sh. = \$13.75$,

$C's\ sh. = \$40 - (\$8.75 + \$13.75) = \17.50 .

Ex. 2. Divide £45 among *A*, *B*, *C*, and *D*, so that *A*'s share : *B*'s share :: 1 : 2, *B*'s : *C*'s :: 3 : 4, and *C*'s : *D*'s :: 4 : 5.

The L. C. M. of 1, 2, 3, 4, and 5, is 60, $\therefore$ if *D* has 60 shares, *C* will have $\frac{3}{4}$ of 60, or 45; *B* will have $\frac{2}{3}$ of 45, or 30; and *A* will have $\frac{1}{2}$ of 30, or 15.

$\therefore (15 + 30 + 45 + 60)$, or $150 : 15 :: £45 : A's\ sh.$;

whence $A's\ sh. = £5$. Similarly $B's = £10$, $C's = £15$. *6s. 8d.*, and $D's = £15$. *13s. 4d.*

FELLOWSHIP OR PARTNERSHIP.

138. FELLOWSHIP or PARTNERSHIP is a method by which the respective gains or losses of partners in any mercantile transactions are determined.

Fellowship is divided into SIMPLE and COMPOUND FELLOWSHIP : in the former, the sums of money put in by the several partners continue in the business for the same time; in the latter, for different periods of time.

The Rule in the last Art. applies for SIMPLE FELLOWSHIP.

Ex. Two merchants, *A* and *B*, form a joint capital; *A* puts in \$240, and *B* \$360; they gain \$80. How ought the gain to be divided between them?

$(\$240 + 360) : \$240 :: \$80 : A's\ sh.$ in \$'s

$\therefore A's\ sh. = \$32$, and $B's\ sh. = \$80 - 32 = \48 .

COMPOUND FELLOWSHIP.

139. RULE. Reduce all the times into the same denomination, and multiply each man's stock by the time of its continuance, and then state thus;

The sum of all the products : each particular product :: the whole quantity to be divided : the corresponding share.

Ex. *A* and *B* trade together; *A* puts in \$300 for 9 mo., and *B* \$240 for 6 mo.; they gain \$115. How ought they to divide it?

By the Rule,