

A General Rule to turn any given Currency into any Currency required.

RULE 1. Let the value of the Spanish Dollar be expressed in Shillings, or Pence, in each of the Currencies, writing them in form of a Fraction,

and making the $\left\{ \begin{array}{l} \text{given} \\ \text{required} \end{array} \right\}$ Currency the Denominator } of the Fraction.
Numerator }

2. Reduce this Fraction to its *least terms*, and it will serve as a constant Multiplier, by which any sum of the *given* Currency being Multiplied, it will be converted into the Currency required.

N.B. When the Fraction is not an improper one the *Multiplier* will become a Divisor.

Example 1. To form a rule for changing Sterling at 4/6. per Dollar into New-York at 8/ per Dollar.

Here *Sterling* is *given*, and *York* *required*:
The Dollar

in $\left\{ \begin{array}{l} \text{York is 8/ or 96 Pence Numerator} \\ \text{Sterling 4/6. or 54 Pence Denominator.} \end{array} \right.$

Therefore $\frac{96}{54}$ is the Multiplier sought, which reduced to its least terms becomes $\frac{16}{9}$ or $1\frac{7}{9}$ therefore if Sterling be Multiplied by 16 and divided by 9, the result will be York, thus $\frac{16}{9}$ is the same as 2 into $\frac{8}{9}$, but $\frac{8}{9}$ is the same as 1 less $\frac{1}{9}$, therefore 2 into $\frac{8}{9}$ is equal to 2 into 1 less $\frac{1}{9}$, which is that Rule, expressed shorter thus, $\frac{16}{9} = 2 \times \frac{8}{9} = 2 \times 1\frac{7}{9}$.