

XVIII.—Page 55.

- (1.) .007916; .0001099989. (2.) 1199.365234375.
 (3.) 59.0625. (4.) \$14591.66 $\frac{2}{3}$ eldest; \$4166.66 $\frac{2}{3}$ two others. (5.) Read 4.190476 instead of 4.1908476. 2 tons 2 cwt. 2 qrs. 11 $\frac{65}{68}$ lbs. (6.) .65706. (7.) $\frac{100129}{102113}$.
 (8.) .0117203. (9.) Examined, 150; average, 250.
 (10.) 61.22.

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(1.) If the work be denoted by 1. Then A and B do 1 in 20 days, or $\frac{1}{20}$ in 1 day. B does 1 in 50 days, or $\frac{1}{50}$ in 1 day. Hence A does $\frac{1}{20} - \frac{1}{50} = \frac{3}{100}$ in one day, and $1 \div \frac{3}{100} = 33\frac{1}{3}$ days, in which A could finish the work by himself.

And B does $\frac{1}{50}$ in 1 day, or in 20 days he does $\frac{20}{50}$ or $\frac{2}{5}$ of the work.

A does $\frac{3}{100}$ in 1 day, or in 20 days he does $\frac{20 \times 3}{100}$ or $\frac{3}{5}$ of the work.

(2.) A and B do 1 in 6 days, and $\frac{1}{6}$ in 1 day. B does $\frac{1}{6}$ in $1\frac{1}{2}$ days, and $\frac{2}{15}$ in 1 day. And A does $\frac{1}{6} - \frac{2}{15} = \frac{1}{30}$: and $1 \div \frac{1}{30} = 30$ days, $1 \div \frac{2}{15} = 7\frac{1}{2}$.

That is, A does the work in 30 days, and B in $7\frac{1}{2}$ days.

(3.) A does 1 in 15 days, and $\frac{1}{15}$ in 1 day. B does 1 in 18 days, and $\frac{1}{18}$ in 1 day. Together they do $\frac{1}{10}$ of the work. $\frac{9}{10}$ remains to be done. Here B leaves, A continues for 3 days, and in that time does the $\frac{3}{15}$ of the work. When C begins there remains of work $\frac{9}{10} - \frac{3}{15} = \frac{4}{10}$. Of this A does the $\frac{4}{15}$ in 4 days, and C, therefore, must do the $\frac{5}{30}$ in 4 days, or the whole in 24 days.