

and of the second $\frac{2}{11}$ sec., and the seventh strike takes place on the completion of the sixth interval. The times are $\frac{210}{11}$ and $\frac{150}{11}$ seconds; their difference is $\frac{60}{11}$ of 1 second, or $\frac{1}{11}$ of 1 minute.

(10.) In conjunction at XII, and at intervals of 1 h. $5\frac{5}{11}$ m. thereafter; in opposition at $32\frac{8}{11}$ past XII, and at intervals of 1 h. $5\frac{5}{11}$ m. thereafter; at right angles at $16\frac{4}{11}$, and at intervals of $32\frac{8}{11}$ m. thereafter; liable to be mistaken $5\frac{5}{143}$ m. past XII, and at intervals of $5\frac{5}{143}$ m. thereafter.

XX.—Page 58.

For the first five questions see Art. 224. (6.) 113.27 litres. (7.) 25.38 kilogrammes. (8.) Art. 224. (9.) 108 kilogrammes. (10.) 762 mm. (11.) $\frac{1}{4}$ gram; 1.4147 mm. (12.) 12732.406 kilo.

XXI.—Page 59.

(1.) $200\frac{907}{980}$; $\frac{539813}{37842944}$. (2.) 3 cwt. 16 lbs. $4\frac{1}{8}$ oz. (3.) £4 16s. $10\frac{477}{1150}$ d. (4.) 2 h. 57 m. $58\frac{295}{223}$ sec. (5.) $\frac{7}{4}$; $\frac{2}{5}$. (6.) 3. (7.) $14\frac{1}{5}$ min. past 5. (8.) 45.5008 metres. (9.) 1 lb. 6 oz. (10.) 307 ac. 3 r. 6 p.

XXII.—Page 60.

(1.) 8085. (2.) 80. (3.) 2 cwt. 1 qr. $8\frac{1}{5}$ lbs.; 1 cwt. 2 qr. $9\frac{1}{5}$ lbs. (4.) $5\frac{4}{5}$. (5.) 2.411482. (6.) \$11 $\frac{1}{2}$. (7.) $3\frac{1}{2}$ h. (8.) $\frac{325}{8}$. (9.) 64 ft. $4\frac{1}{2}$ in.

(10.) Instead of 57700421, read 72644830039; the other number is 2521777.

XXIII.—Page 62.

(1.) 7. (2.) \$261.2685. (3.) $113\frac{1}{33}$ grs. (4.) \$158.40. (5.) A, $18\frac{1}{2}$ days; B, 22 days. (6.) A, \$160; B, 240. (7.) $\frac{27\frac{1}{2}}{71\frac{1}{2}}$. (8.) £199 19s. $2\frac{1}{1920}$ d. (9.) 47 lbs. $15\frac{1}{20}$ oz. (10.) \$59.69 $\frac{1}{2}$. (11.) 1st year, \$700; 2nd year, \$756.