(b) Simplify $\frac{7}{4} + \frac{7}{71}$ of $\frac{1}{14} + \left(\frac{37}{44} - \frac{33}{44} + \frac{7}{24}\right) \div 44$.

(c) Divide 19.836 by 51.6; and 1083.6 by 5.16, and also by .00516, and prove each result by vulgar fractions.

9. A shopkeeper buys 1 cwt. of tea at 4s. 2d. per lb., and mixes it with tea which cost him 2s. 11d. per lb. How much of the latter must he add to the former that he may sell the mixture . at 3s. _____ per lb., and gain 20 per cent. on his outlay ?

10. 4 ft. 4 in. being the area of a map which is laid down on the scale of an inch to a mile, required the number of acres represented.

11. A person's taxes amount to 10 per cent. on his income, and after paying them he has \$1250 a year; find his gross income.

12. In an election of a member of Parliament, 15th of the constituency refused to vote, and of two candidates the one who is supported by 18th of the whole constituency is returned by a majority of five; find the number of votes for each.

VII.

1. Prove that 29 multiplied by 15=15 multiplied by 29. What is the difference between abstract and concrete numbers?

2. On the roof of a public building there was a tank holding 18 tons of water. Supposing it cubical, what would have been its dimensions? One cubic foot of water weighs 1000 oz.

3. If it take 3' to read over two pages of a book containing 30 lines in each page, with an average of 10 words in a line, how many pages of another book can be read in 20' where there are 50 lines in a page and 12 words in a line ?

4. Required the expense of painting the outside of a cubical box, whose edge is 3.5 ft., at \$1.30 per sq. yd.

5. The wages of 25 men amount to £76. 13s. 4d. in 16 days, how many boys must work 24 days to receive £103. 10s., the daily wages of the latter being one half those of the former?

6. If a bookseller gain 3th of the prime cost of a book by selling it at \$1.50, what would be his gain per cent. if he sold it at \$1.75?