Examination VI. June 5, 1868.

- 121. Express in figures the number represented by four units of the tenth order, six of the eighth, four of the seventh, two of the sixth, one of the third, and five of the second.
- 122. Numerate the number represented by four units of the tenth order, six of the eighth, four of the seventh, two of the sixth, one of the third, and five of the second.
- 123. How may 25,000 be expressed in Roman numerals?
- 124. How is the *local* value of a figure determined, or upon what does it depend?
- 125. What is the sum of the composite numbers from 50 to 80 inclusive?
- 126. From sixty-five trillions three millions six hundred and twelve, take nine billions one million four thousand and six.
- 127. A tax of thirty millions fifty-six thousand four hundred and sixty-five dollars is assessed equally on four thousand and ninety-seven towns: what sum must each town pay?
- 128. Which of the fundamental rules is employed in reducing a denominate fraction to integers of lower denominations?
- 129. How many cubic inches does the standard unit of liquid measure contain?
- 130. How many cords of wood in a pile 140 ft. long, $4\frac{1}{2}$ ft. wide, and $6\frac{1}{2}$ ft. high?
 - 131. A stationer bought 1 great gross of slates at 9

pence each; what was the whole cost, in pounds sterling?

- 132. Of what factors of two or more numbers does their greatest common divisor consist?
- 133. What is the smallest sum of money with which horses can be bought at \$50 each, cows at \$30 each, or sheep at \$8 each, using the same amount in each case?
 - 134. Express in words 0.500072.
- 135. What number must be multiplied by $15\frac{\circ}{3}$ that the product may be $56\frac{\circ}{2}$?
- 136. How is the value of a fraction affected when its denominator is divided by a number greater than unity?
 - 137. How do you multiply .061 by 100,000?
 - 138. What amount is due on the following items:?
 - **37** chests green tea at \$ 23 75 each. **42** "black" " 17 50 "
 - 12 crates Liverpool ware " 175 00 "
 - 19 bbl. Genesee flour " 15 50 "
 - 23 bu. rye " 1 52 "
- 139. When are four quantities said to be in proportion?
- 140. If $\frac{4}{9}$ of the distance from A to B is 32 miles, what is $\frac{5}{19}$ of the same distance?
- 141. How is the rate per cent, ascertained when the *principal*, *interest*, and *time* are given.
- 142. If \$300 gain \$18 in nine months, what is the per cent?
 - 143. What is the length, in feet and inches, of

each side of a square carpet, made from $49\frac{1}{2}$ yd. of Brussels carpeting, $\frac{3}{4}$ yd. wide?

144. How is the *last term* of a geometrical series found, the *first term*, ratio, and number of terms being given?

Examination VII. Nov. 13, 1868.

- 145. Express in figures six hundred millions seventeen thousand three hundred and eight.
- 146. What is the sum of 372856, 404932, 2704793, 9078961, 304165, 207708, 41274, 375, 271, 34 and 6?
- 147. From sixty-five billions three millions six hundred and twelve, take nine billions one million four thousand and six.
- 148. One factor of a certain number is 11, and the other 3708311605; what is that number?
 - 149. What are the prime factors of 800?
- 150. If the quotient is 482, and the divisor 281, what is the dividend?
- 151. If I take 13729 from the sum of 8762 and 14-967, divide the remainder by 50, and multiply the quotient by 19, what is the product?
 - 152. How many miles in 60,750 links?
 - 153. What is the sum of $\frac{4}{25}$ of $9\frac{3}{5}$, and $\frac{4}{21}$ of $328\frac{2}{5}$?
 - 154. Reduce $\frac{5}{7}$ of $\frac{14}{25}$ of $6\frac{1}{5}$ of 17 to a simple fraction.
 - 155. How many times is 5 contained in 837?
- 156. Reduce $\frac{9}{25}$ of an acre to lower denominations.
- 157. Find the greatest common divisor of 492, 744, 906.