each side of a square carpet, made from  $49\frac{1}{2}$  yd. of Brussels carpeting,  $\frac{9}{4}$  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.

- 158. What is the least common multiple (or dividend) of the nine digits?
  - 159. Divide 0.01764144 by 0.0018.
- 160. Reduce 7 fur. 29 rd. to the decimal of a mile.
- 161. What sum, at 7 per cent., will amount to \$221.075 in 3 years 4 months?
- 162. What is the amount of \$1,200 for 2 years at 6 per cent. compound interest, payable quarterly?
- 163. If \$100 gain \$6 in 1 year, what principal will gain \$12 in 8 months?
- 164. To what number has  $\frac{1}{2}$  the same ratio as exists between 3 and 21?
- 165. What number of men will be required to perform a piece of work in 8 days, that would take 15 men 24 days?
- 166. A. and B. enter into partnership. A. furnishes \$240 for 8 months; and B. \$560 for 5 months. They lost \$118. How much did each man lose?
  - 167. What is the square root of 61723020.96?
- 168. How many cubic quarter-inches are contained in a cubic inch?

## Examination VIII. Feb. 19, 1869.

- 169. Add the following numbers: One hundred and eight billions, three hundred and six; twenty-one billions, twenty thousands, two hundred and ten; thirty billions, twenty-nine millions and three.
- 170. Reduce 2,579,792 drams avoirdupois to higher denominations.
  - 171. Reduce 1 mi. 18 rd. 2 yd. 2 ft. to inches.