

University of the State of New York

Examinations Department

Special examination

ARITHMETIC

Tuesday, September 22, 1891—9 : 15 a. m. to 12 : 15 p. m., only

48 credits necessary to pass, 36.

1. Define (*a*) sum; (*b*) quotient; (*c*) denominator; (*d*) square root. Give an example of each. 4
2. A man deposits in bank \$986.46. At different times he has drawn the following amounts: \$314.18; \$49.25; \$57.62; \$39.84; \$25.13. Find the amount remaining in the bank. 3
3. If 9 men earn \$72 in 3 days how many dollars will 7 men earn in 6 days? (Solve by analysis and give the analysis in full.) 4
4. A news-boy buys 144 daily newspapers at 20 cents a dozen, and sells them at 3 cents each. At the end of 6 days he has 18 papers on hand. How much has he made during the week? 4
5. Which would be cheaper and how much, to buy quinine at \$16.50 a pound avoirdupois or at \$1.10 an ounce apothecaries weight? 4
6. How many meters of carpet, 90 centimeters wide, will cover a floor 6 meters long and 45 decimeters wide? 2
7. A close board fence, 40 rods long and 4 feet high, is to be made of boards 11 feet long and 8 inches wide. Find the value of the boards required, at \$22.50 a thousand. 3
8. How high must be a pile of wood, 10 feet long and $2\frac{1}{2}$ feet wide, to contain one cord? 2
9. If a man walks $10\frac{2}{3}$ miles one day, $2\frac{1}{2}$ times as far the next day and on the third $1\frac{3}{5}$ as far as on the second, how far would he walk in the three days? 4
10. A publisher sold for \$13,520 his stock of books which cost him \$18,750. What was the rate of loss? 2
11. A pupil who attended school 68 days during a term, was marked 85% for attendance. How many days was he absent? 2
12. A real estate agent paid \$8000 for an estate, $\frac{1}{2}\%$ for insurance, \$64 for taxes, and \$1260 for repairs. The estate was sold for a two-months' note of \$11,000, which was immediately discounted by a bank at 6% per annum. Find the gain or loss. 4
13. How much should be paid for 40 shares of railroad stock at $3\frac{1}{2}\%$ discount and $\frac{1}{3}\%$ brokerage? 2
14. A certain town raised a tax of \$4607.50. The real estate was valued at \$420,000, the personal property at \$189,000, and 1250 persons paid a poll tax of \$1.25 each. Find the tax on one dollar of the property. 4
15. If rain-drops are falling directly downward, how much more surface would be protected from the rain by a board 20 feet long and 18 inches wide, when in a horizontal position, than when one end of it is elevated 9 feet higher than the other? 4