

University of the State of New York

77TH EXAMINATION

ARITHMETIC

TUESDAY, JUNE 9, 1891—9:15 A. M. to 12:15 P. M., only

60 credits, necessary to pass, 45

Note.—Give each step of solution, indicating the operations by appropriate signs. Use cancellation when possible. Reduce fractions to lowest terms. Express final result in its simplest form and mark it *Ans.*

1. Define (*a*) minuend; (*b*) multiplier; (*c*) discount; (*d*) ratio. Give an example of each term. 8

2. The mail received at a city post-office for 3 days was as follows:

	1st day	2d day	3d day
Letters	9,902	9,859	10,385
Postal cards	2,129	1,986	1,655
Parcels and newspapers	12,798	14,798	20,884

Find (*a*) the total mail of each day; (*b*) the total of each kind of mail. 6

3. If 8 men earn \$630 in 7 weeks, how much will 6 men earn in 10 weeks? (Solve by analysis and write the analysis in full.) 4

4. Write the common and the metric tables for liquid measure. 4

5. A field containing 15 acres is 80 rods long; find the cost of fencing it at \$1.12½ a rod. 4

6. Find a man's wages for 6 weeks, 2 days and 5 hours at \$15 a week, a week being reckoned at 6 days of 8 hours each. 4

7. Find the cost of 21,535 pounds of coal at \$5.25 a short ton. 2

8. The sum of three numbers is 84; the least is 4½, the greatest 47¼; find the product of the three numbers. (Do not reduce fractions to decimals.) 4

9. Find the value of a house whose rent at \$30 a month is equivalent to 7½% of its value. 2

10. What principal will amount to \$2650 in 8 months at 9%? 2

11. The interest of \$1460 for one day is 25 cents; find the rate per annum. 2

12. Samuel Jones gives John Smith a note of \$250, dated April 7, 1891, payable in 60 days. This note is discounted April 7, 1891, at 6%. Write the note in proper form; find its maturity and proceeds. 6

13. A, B and C rent a pasture for 5 months at \$16.20 a month. A puts in 3 horses for 3 months; B, 5 horses for 2 months, and C, 7 horses for 5 months. How many dollars rent should each pay? 4

14. A pays \$648.12½ in taxes at the rate of 15¼ mills on a dollar, his property being assessed at ¾ of its real value; find the value of his property. 4

15. A certain field contains 34,992 square yards; its length is three times its breadth; find the length and breadth. 4