Promotion Examinations.

NORTH YORK UNIFORM PROMOTION EXAMINATIONS.

NOVEMBER 6TH, 1885.

ARITHMETIC.

TO FOURTH CLASS.

Time 1½ hours. Fifty marks to count a full paper.

1. Multiply 7325648 by 210357. (Four marks extra if done with three partial products.)

2. How many acres, etc, in a piece of land 220 feet wide and 400 feet long?

3. A man tells his servant to spend the smallest possible equal amounts in buying horses at $85 each, cows at $40 each, and sheep at $8 each. What is the smallest amount the servant can spend in purchasing each kind of animal, and how many of each kind will it buy?

4. Find the difference between

$$\left\{\frac{3-\frac{1}{5}}{3+\frac{1}{5}} \text{ of } \frac{2-\frac{1}{4}}{2+\frac{1}{4}}\right\} \div \left(\frac{3+\frac{1}{4}}{3-\frac{1}{4}} \text{ of } \frac{2+\frac{1}{4}}{2-\frac{1}{4}}\right)$$

and 1.7632. Express your answer as a decimal, and also as a vulgar fraction.

5. Arrange the fractions: seven-ninths, eleven-thirteenths, twenty-four-twenty-ninths, and fifteen-seventeenths, in order of magnitude (least first).

6. A can do a piece of work in half a day; B can do the same in ⅓ of a day, and C can do it in ¼ of a day. How long will it take all three working together to do the work?

TO SENIOR III. CLASS.

Time 1½ hours. Fifty marks to count a full paper.

1. Write the largest number which can be formed with the figures: 3, 2, 4, 6, 8, 7, and 9; write it in words and also in Roman numerals.

2. Multiply 2357864 by 360, using any three factors as multipliers, and prove your result by division, using three different factors as divisors.

3. What is the difference between a *measure* and a *multiple* of a number? Find the G. C. M. of 1134, 1386, and 630.

4. Find the L. C. M. of 32, 44, 52, 13, 65, and 48.

Write tables used for weighing gold, measuring cloth and measuring wine.

5. Four men bought coal from a coal dealer as follows: The first 1 ton, 14 cwt., 3 qrs., 15 lbs.; the second three times as much as the first; the third twice as much as the second, and the fourth as much as the other three. How much did they buy altogether, and how much did the coal dealer receive for it at 35 cents per cwt.?

6. A man has a pile of cordwood 75 feet long, 6 feet high, and 24 feet wide. How many cords in it, and what is it worth at $4.35 per cord?

TO JUNIOR III. CLASS.

Time 1½ hours. Fifty marks to count a full paper.

1. Write down the greatest number which can be formed with the figures 7, 8, 6, 9. Write that number in words, and also in Roman numerals.

2. Give the names of the first four periods in numeration. Write in figures, and also in words, the number which has five in the *fourth* period, twenty-six in the *third* period, and one hundred and nine in the *first* period.

3. To the sum of 793206, 86324 and 2749867 add the difference between 1234567 and 765479, and from the result take 79 times 24769.

4. Divide 13189212 by 937, and prove your result by multiplication.

5. What is the amount of the following bill at the store: 7 pounds tea, at 65 cents a pound; 15 pounds sugar, at 8 cents a pound; 14 yards of cotton, at 13 cents a yard, and 29 yards of cloth, at 68 cents a yard?

6. A boy threw a stone down the road 140 feet, and another up the road 160 feet. How far had he to walk to bring both stones back to the spot from which he threw them?

EAST MIDDLESEX PROMOTION EXAMINATION.

APRIL, 1885.

ARITHMETIC.

THIRD TO FOURTH CLASS.

Time, 3 hours.

(The work prescribed for the class is the simple rules, reduction and the compound rules, and cancellation.)

1. Take 2405 times 3506 from ten millions and divide the remainder by 252, using factors two of which are 4 and 7.

2. 589 articles at 26 cents each = ——

    38 articles at — cents "   – $5.32.

    1426 articles at — cents "   - ——

    79 articles at — cents "   – $15.01.

The whole lot is worth $301.81. Find from what is given the price of each of the 38, of the 1426, and of the 79 articles.

3. Express:

a. 26 tons, 18 cwt., 79 lbs., 96 oz. of coal in lbs.

b. 34 rods, 5 yards, 36 feet, 36 inches of wire in yards.

c. 17 weeks, 4 days, 48 hours and 2880 minutes in days.

4. What would be the difference in price:

a. On 17 dozen of eggs at 1¼ cents for each egg and 20 cents per dozen.

b. On 54 feet of lead pipe at 2 cents an inch and 74 cents per yard.

c. On 24 sq. yards of oil cloth at 7 cents per sq. foot and 58 cents per sq. yard.

5. Divide 13 acres, 120 sq. rods, 15 sq. yds., 7 sq. ft. by 47.

(Use compound division, giving the answer in sq. rods, sq. yds., etc.)

6. Make a bill of the following items: put all the work on paper and write denominations:

    2 lbs., 8 oz, starch at 2c. per oz.

    1 gal., 3 qts vinegar at 40c. per gallon.

    3 lbs., 4 oz. tea at 60c. per lb.

    1 bush., 2 pks. apples at 12½c. per pk.

(Two marks for correct addition of the items and five for a very neat and correctly made bill.)

7. 13 loads of gravel are required for 7 rods of road; 4 loads measure a cord; the average price per cord of the gravel 18c.; how many miles, rods, yds., etc., of road can be gravelled with $28 worth of gravel?

8. Find the value of a pile of four foot wood, 5 ft. high, 27 ft. long, at $4.10 per cord.

9. 4854 lbs. of wheat at 82 cents per bushel, and 560 lbs. of barley at 56 cents per bushel of 48 lbs. Add their values.

10. Find the value of lumber required for the side of a building 48 ft. long and 16 ft. high, at $11.50 per thousand.

SECOND TO THIRD CLASS.

Time, 2½ hours.

1. a. Write in words the number between 1779 and 1781 and between 889 and eight hundred and ninety-one; write in words 10050 and CCXCIV.

b. Write in figures seventy thousand six hundred and nine, and MDCCCLXXXV.

2. Take 790 times 8987 from 1405 times 5706, and write in words how many times one hundred is contained in the remainder.

a. Add 135412, 98689, 112486, 79687, 9869, 86595, 304596.

b. Tell which of these numbers is the largest; which second largest; which, third; fourth; fifth; sixth; and which is the smallest.

4. The sum of five addends is 175171; the first addend is 5689, the second is 787 more than the first, the third 966 less than the sum of the first and second; the fourth is eight times the second; find the fifth.

5. Divide the product of 789 and 845 by their difference; divide by factors.

6. A man left Delaware at 6.30 a.m. and drove to St. Mary's, a distance of 36 miles, where he remained two hours. What o'clock was it when he got back to Delaware? He drove at the average rate of six miles per hour.

7. A stock raiser bought young cattle at $27 each and sold them at $41 each. How many head did he sell to gain $658:

8. Mrs. List bought 5 lbs. of butter at 21c. per lb., 4 doz. eggs at 19c. per doz., 17 lbs. sugar at 7c. per lb., 5 lbs. tea at 65c. per lb. She gave the storekeeper a five dollar bill and a four dollar bill: how much change should she get?

9 Find the distance between two towns when it costs a family of four persons $9.60 for railway fare at the rate of three cents per mile for a single ticket.

THE Boston *Herald* sarcastically remarks: Very often now-a-days some ignoramus of a fellow is overheard loudly boasting that he got all his education at the wood pile, or the plow tail; while neither in his command of vigorous English, nor of strong sense, nor of racy imagination, does he appear to reflect the least credit on either of these universities. For all that is seen he might just as well have graduated at Harvard or Yale, and yet turned out no greater dunce.