The University of the State of New York

225TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Tuesday, June 14, 1921—9.15 a. m. to 12.15 p. m., only

Write at top of first page of answer paper (*a*) name of school where you have studied, (*b*) grade of work completed in arithmetic.

The minimum requirement is the completion of the work of the seventh grade in arithmetic, as outlined in the 1910 syllabus for elementary schools.

Answer the first five questions and seven of the others. Reduce each result to its simplest form and mark each answer Ans.

Questions 1, 2, 3, 4 and 5 are given as tests for accuracy: no credit, therefore, will be allowed unless the answer is correct.

1 Mental test on separate sheet. [10]

2 Copy and add the following: [5]

27.8; 384.52; 927.3; 6.285; 303.25; 87; 832.04; .0375; 94.666; 436.9

3 What is the product of 345 and $6\frac{2}{3}$? [5]

4 Divide 12.39 by 2.9, carrying the result to *three* decimal places. [5]

5 From $38\frac{1}{4}$ subtract $10\frac{3}{8}$; to the difference add $59\frac{5}{6}$. [5]

6 Make a receipted bill for the following: On June 14, 1921, Robert Morris sold to James Dow 2 sacks flour @ \$1.35 a sack; 15 pounds sugar @ 9¢ a pound; 5 gallons kerosene @ 22¢ a gallon; 3 pounds coffee @ 38¢ a pound; 1 pound tea @ 60¢ a pound. Paid in full June 16, 1921. [10]

7 A pupil receives a certain standing in each of *six* subjects; tell how you would find his average standing. [10]

8 A man raises 4000 barrels of apples; he makes $\frac{1}{8}$ of them into cider, sells $\frac{1}{4}$ of them locally and ships the remainder. At \$3.79 per barrel, what does he receive for the shipment? [10]

9 A roof on each side of the ridge is 64 feet long and 18 feet 9 inches wide; at \$3.25 a gallon, what will be the cost of the paint required to cover the roof, if a gallon of paint will cover 400 square feet of surface? [10]

10 A steer weighing 1200 pounds alive, after having been killed and dressed, was sold at $19\frac{3}{4}$¢ a pound; if the weight of a dressed steer is 65% of its live weight, how much was received for the steer? [10]

11 Find the simple interest on \$450 at 5% from July 1, 1920, to March 17, 1921. [10]

12 On January 1, 1920, the weekly pay roll of a certain corporation was \$45,000; on May 1 all wages were advanced 20%; on December 1 the increased wages were cut $16\frac{2}{3}$%. Find the amount of the final pay roll. [10]

13 Find the side of a square field that has the same area as a rectangular field 81 rods long and 64 rods wide. [10]

14 If a candidate for office receives 16,353 votes in 237 election districts in a certain city, state how many votes he may be expected to receive in the whole city which has 789 election districts, assuming the vote to be uniform throughout the city. [Solve by proportion.] [10]

15 Copy *five* of the following incomplete sentences and make them into true statements by filling in the blanks with the correct words: [10]

a The number that is to be divided by another number is the .

b One or more of the equal parts of a unit is called a .

c The result obtained by division is the .

d The amount that is paid to an agent for doing business for another is the .

e Those numbers which multiplied together produce the given number are the of the number.

f Money that is paid for the use of money is .

g The one who makes a note is the .

ARITHMETIC MENTAL TEST

[Fifteen minutes allowed for this test]

Tuesday, June 14, 1921—9.15 a. m. to 12.15 p. m.

Answer all parts of this test. Write each answer in the space marked Ans. No credit will be allowed unless the answer is correct.

a A boy bought 5 five cent postage stamps, 6 two cent stamps and 15 one cent stamps; what change did he receive from a dollar? [1]

Ans.

b Find the cost of 16 books at 62½ cents each. [1]

Ans.

c If I reach the station 15 minutes before the time when the train is due to leave and the train is ¾ of an hour late, how long must I wait to take the train? [1]

Ans.

d How many pieces, each ¾ of a yard long, can be cut from a strip of cloth 5¼ yards long? [1]

Ans.

e What is the interest on $600 for 8 months at 6%? [1]

Ans.

f A certain baseball team won 12 games and lost 3 games; what per cent of the games played did the team win? [1]

Ans.

g What would be the cost of 2 pounds 8 ounces of beefsteak at 32 cents a pound? [1]

Ans.

h Find the cost of a load of coal weighing 3000 pounds net at $14 a ton. [1]

Ans.

i Shoes are bought for $5 and sold for $7; what is the gain per cent? [1]

Ans.

j A merchant marks a suit of clothes $80 and afterward at a sale reduces the price 40%; what is the sale price? [1]

Ans.