The University of the State of New York

ARITHMETIC

Monday, June 17, 1935 — 1.15 to 4.15 p. m., only

Fill in the following lines:

Name of school...Name of pupil...

Instructions

Do not open this sheet until the signal is given.

Answer all questions in part I and five questions from part II.

Part I is to be done first and the maximum time to be allowed for this part is one and one half hours. Merely write the answer to each question in the space at the right; no work need be shown.

If you finish part I before the signal to stop is given you may begin part II. However, it is advisable to look your work over carefully before proceeding to part II, since *no credit will be given any answer in part I which is not correct and reduced to its simplest form.*

When the signal to stop is given at the close of the one and one half hour period, work on part I must cease and this sheet of the question paper must be detached. The sheets will then be collected and you should continue with the remainder of the examination.

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Part I

Answer all questions in this part. Each question has 2 credits assigned to it; no partial credit will be allowed. Each answer must be reduced to its simplest form.

1 Find the sum of 6898; 995; 7564; 5778; 69   1..................*Ans.*

2 Add 2.73; .29; 1.07; 8.9   2..................*Ans.*

3 $23\frac{3}{8} - 11\frac{5}{8}$ 3..................*Ans.*

4 $14\frac{5}{8} \div 3\frac{1}{4}$ 4..................*Ans.*

5 $48 \times 35\frac{5}{8}$ 5..................*Ans.*

6 Find the perimeter of a rectangle 16 feet long and 8 feet wide.   6..................*Ans.*

7 16 is 20% of what number?   7..................*Ans.*

8 Complete the following statement: The answer in division is called the ....   8..................*Ans.*

9 What fractional part of 16 is 4?   9..................*Ans.*

10 Divide 83.84 by 6.4   10..................*Ans.*

11 Find the sum of $3\frac{3}{8}$; $7\frac{2}{3}$; $5\frac{1}{2}$ 11..................*Ans.*

12 What is the interest on $250 for 6 months at 5%?   12..................*Ans.*

13 Write $12\frac{1}{2}$% as a decimal.   13..................*Ans.*

14 How many sides has a triangle?   14..................*Ans*

15 What will be the cost of 14 ounces of steak at 32 cents a pound?   15..................*Ans.*

16 Suppose that your school marks were 85, 82, 75, 78 and 90; what was your average?   16..................*Ans.*

17 80.65×1.03 17..................*Ans.*

18 If school begins at 8.30 a. m. and closes at 3.15 p. m., how long is the school day, including the noon hour and recesses?   18..................*Ans.*

19 Write in figures: two hundred four and four thousandths.   19..................*Ans.*

20 Find the value of x in the proportion $14 : 35 : : x : 65$ 20..................*Ans.*

21 At 3 for 10 cents, what will a dozen bars of candy cost?   21..................*Ans.*

22 A basketball team played 16 games and won 12. What per cent of the games did the team win?   22..................*Ans.*

23 If the scale of a map is 150 miles to the inch, how long a line represents a distance of 450 miles?   23..................*Ans.*

24 How much change should I receive from a $1 bill if I buy 3 loaves of bread at 12 cents a loaf and a bottle of milk for 10 cents?   24..................*Ans.*

25 If a pint of milk will fill two glasses, how many glasses can be filled from 3 one-quart bottles of milk?   25..................*Ans.*

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Write at top of first page of answer paper to part II (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 first half of the eighth grade in arithmetic.

Part II

Answer any five questions from this part. No credit will be allowed unless all necessary operations are given. Reduce each result to its simplest form and mark each answer Ans.

26 At a basketball game 110 tickets were sold to pupils at 15 cents each and 65 tickets were sold to adults at 25 cents each. The expenses were $8 for the referee, 75 cents for oranges and gum, $10 for rent of the gymnasium and $2 for janitor service. Find the amount of the net profit. [10]

27 A man has an income of $5000 a year. He is allowed exemptions of $2500 for being the head of a family and $400 for one child. Find the amount of the income tax he must pay on the balance at the rate of 3%. [10]

28 A farmer's automobile averages 15 miles per gallon of gasoline and 150 miles per quart of oil. If the gasoline cost 16 cents a gallon and the oil 30 cents a quart, how much did it cost the farmer for gasoline and oil during a year in which his automobile was driven 6525 miles? [10]

29 At one store a stove costs $60 with a discount of 20%. At another store a similar stove costs $65 with successive discounts of 15% and 5%. Which is the better offer [4]? How much better [6]?

30 A family has a weekly budget that allows $15 for food. If 15% is allowed for milk and its products, 10% for fruits and vegetables, 30% for bread and cereals, 20% for meat and fish and the balance for various other foods, find the amount of money spent for each class of food. [10]

31 Mr Hunter's property in a village has an assessed valuation of $5000. His tax is $150; what is the tax rate on $100 [5]? The estimated expenses of the village for which this tax was raised are $8400; what is the assessed valuation of all the property in the village [5]?

32 Mary, who is a clerk in a store, receives $12 a week and a 3% commission on all she sells above $125. One week she sold goods amounting to $250. How much did she earn that week? [10]

33 Mr Jones insures his barn and contents valued at $3200 for ⅜ of their value. At 60 cents per $100 of insurance, what premium does he pay? [10]

34 The following information is found in the annual school report of a certain city:

     Total days attendance of all pupils 2,708,640
     Number of days schools were in session 190
     Number of teachers employed full time 528
     Total expenses of the schools $2,152,656

Find *a* Average daily attendance of all pupils [4]
    b Cost per pupil based on average daily attendance [3]
    c Average number of pupils under the direction of each teacher [3]