The University of the State of New York

253D HIGH SCHOOL EXAMINATION

ARITHMETIC

Monday, January 25, 1932 — 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.

Part I

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

1 Multiply 70.9 by 8.9

2 Divide 343.62 by 46

3 $37\frac{3}{8} - 19\frac{3}{4}$

4 Divide $6\frac{2}{3}$ by 15

5 Copy and add: $8.25; $4.83; $.75; $8.29; $7.07; $.65; $6.25

6 Find the value of x in the proportion $3 : 5 = x : 15$

7 What per cent of 72 is 24?

8 Square 32.5

9 Gladys saves 15¢ of her weekly allowance of 75¢. What per cent of her allowance does she save?

10 If the perimeter of a square field is 200 rods, what is its area in square rods?

11 Each week at school Irving has 135 minutes of shop work; how much time in hours and minutes does he spend in this work?

12 Last summer Madge picked 180 roses from her garden. If she sold them at $2 a dozen, how much did she receive for them?

13 If 6 men can do a piece of work in 15 days, in how many days can 3 men do it working at the same rate?

14 A house rents for $148 for 4 months; what is the rent for a year?

15 Jane bought a coat that was marked $65; at 20% off, how much did she pay for the coat?

16 Mrs Lee bought $3\frac{1}{2}$ yards of curtain material. How many curtains each $\frac{7}{8}$ of a yard long can she make from this material?

17 A road map was drawn to a scale of 10 miles to an inch; find the distance in miles between two towns that are $5\frac{2}{5}$ inches apart on the map.

18 In tests for 6 consecutive weeks, Fred received averages of 71%, 92%, 100%, 64%, 88% and 70%; what was his average for the 6 weeks?

19 In 3 years Lena gained $28\frac{1}{2}$ pounds in weight; find her average gain a year.

20 In Reed City 92% of the 25,850 school children were promoted; how many children were not promoted?

21 What is the interest on $600 for 3 years at 4%?

22 A team lost 4 games which was 20% of the total number of games played; how many games were played?

In *each* of the following exercises select the one correct answer from those in parenthesis:

23 $12\frac{1}{2}\% = (\frac{125}{100}; .0125; \frac{1}{8})$

24 $\frac{2}{3} = (66\frac{2}{3}\%; .066\frac{2}{3}; .33\frac{1}{3})$

25 Five and three hundred one thousandths $= (.5301; 5.301; 5.0301)$

1......................*Ans.*

2......................*Ans.*

3......................*Ans.*

4......................*Ans.*

5......................*Ans.*

6......................*Ans.*

7......................*Ans.*

8......................*Ans.*

9......................*Ans.*

10......................*Ans.*

11......................*Ans.*

12......................*Ans.*

13......................*Ans.*

14......................*Ans.*

15......................*Ans.*

16......................*Ans.*

17......................*Ans.*

18......................*Ans.*

19......................*Ans.*

20......................*Ans.*

21......................*Ans.*

22......................*Ans.*

23......................*Ans.*

24......................*Ans.*

25......................*Ans.*

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(b) Write at top of first page of answer paper to part II (a) name of school where you have studied, grade of work completed in arithmetic.
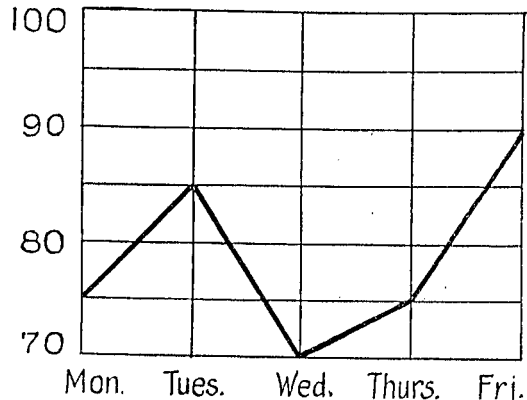
The minimum requirement is the completion of the work of the first half of the eighth grade in arithmetic.

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 There were 1400 copies of the last issue of a school paper printed. Of these 1265 were sold at 5¢ each. Advertisers paid $27.50 for their advertisements. The cost of printing the paper was $45. What was the profit on that issue of the paper? [10]

27 The graph shows the standings in arithmetic earned by John during the past week; what mark did he receive on *each* day of the week? [10]

28 Edward sold ice cream at the High School ball game. He purchased 8 gallons of ice cream at $2.20 a gallon. He paid $3 for paper dishes and spoons and $2.50 to Frank, who helped him. He sold 275 plates of ice cream at 10¢ each. Find the total cost and the profit [6]. Find the per cent of profit based on the total cost [4].

29 How many cubic yards of earth will be removed in digging a tunnel 50 feet long, 10 feet wide and 9 feet high [6]? Find the cost at 65¢ a cubic yard [4].

30 When Lindbergh left New York, his empty plane with its instruments weighed 2150 pounds. It carried as its load 450 gallons of gasoline weighing 6.12 pounds a gallon, 25 gallons of oil weighing 7 pounds a gallon, 45 pounds of miscellaneous load, and Lindbergh, who weighed 170 pounds. How much did the plane with its entire load weigh? [10]

31 Mr Hart, a shopkeeper of Elmira, N. Y., needed $500 to buy toys for the Christmas trade. On December 1, he borrowed this amount at 6% for 30 days from the First National Bank. Write the promissory note that Mr Hart gave [5]. Find the amount of interest that Mr Hart paid [5].

32 Mr Waters owns a house of which the assessed valuation is $6500. The school tax rate for 1931 was 12 mills on $1. How much was his school tax last year? [10]

33 The list price of an electric washing machine is $104. It can be bought on the instalment plan for a down payment of $20 and payments of $8 a month for one year. If cash is paid, a discount of 12½% is allowed. How much more does the machine cost when purchased on the instalment plan than when cash is paid? [10]

34 Make out a bill for the following: [3]

E. F. Taylor & Co. sold to Mr Frank Seton on January 15

    40 Cord Tires   @ $10
    50 Inner Tubes   @ $ 2

Discounts of 20% and 2% were allowed. What amount did Mr Seton pay [7]?

[3]