

The University of the State of New York

268TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, January 20, 1937 — 9.15 a. m. to 12.15 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 Add 3.5; 18.05; .32; 5.625; 17 | 1.....Ans. |
| 2 Find the sum of $3\frac{1}{4}$; $8\frac{2}{3}$; $4\frac{1}{2}$ | 2.....Ans. |
| 3 $72 \times 3\frac{5}{12}$ | 3.....Ans. |
| 4 $18\frac{3}{8} \div 3\frac{1}{2}$ | 4.....Ans. |
| 5 $17\frac{1}{8} - 5\frac{3}{4}$ | 5.....Ans. |
| 6 If 24 is 25% of a number, find the number. | 6.....Ans. |
| 7 What fractional part of 100 is $16\frac{2}{3}$? | 7.....Ans. |
| 8 Find the perimeter of a square that has an area of 49 square inches. | 8.....Ans. |
| 9 Write in figures: two thousand seven and forty-five thousandths. | 9.....Ans. |
| 10 What is the interest on \$600 for 60 days at 6%? | 10.....Ans. |
| 11 At 3 for 25 cents, how many pencils can you buy for one dollar? | 11.....Ans. |
| 12 What will 72 inches of ribbon cost at \$1.08 a yard? | 12.....Ans. |
| 13 Square 8.6 | 13.....Ans. |
| 14 A whale may weigh as much as 180,000 pounds. How many tons is that? | 14.....Ans. |
| 15 $.7623 \div 1.21$ | 15.....Ans. |
| 16 A boy worked from 8:30 a. m. until 12 noon and received 20 cents an hour. How much did he earn? | 16.....Ans. |
| 17 A popular car has a tire whose diameter is 28 inches. What is the circumference of the tire? | 17.....Ans. |
| 18 How many square yards of cement flooring will be required for a garage with dimensions of $18' \times 24'$? | 18.....Ans. |
| 19 A boy spelled correctly 22 words out of a total of 25 words. What per cent did he spell correctly? | 19.....Ans. |
| 20 Change $\frac{7}{8}$ to a decimal. | 20.....Ans. |
| 21 $\frac{7}{4} \times \frac{3}{2} \times \frac{8}{21} =$ | 21.....Ans. |
| 22 Find the square root of 1296 | 22.....Ans. |
| 23 If an automobile used 35 gallons of gasoline in going 595 miles, how many miles did it average to the gallon? | 23.....Ans. |
| 24 Find the value of x in the proportion $12 : x :: 20 : 5$ | 24.....Ans. |
| 25 Mary's marks in spelling for five days were: 80, 92, 86, 75, 82. What was her average for the week? | 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 A small city with an assessed valuation of \$16,785,200 needed to raise \$134,281.60 for its school system.

a What was the tax rate per \$1000? [6]

b What was the amount of tax on a home valued at \$5000 and assessed at 60% of its market value? [4]

27 Copy the expressions in column I and after each write the word or number selected from column II that matches it. [10]

Column I

Column II

A proper fraction is
 The square root of 6400 is
 The line from one corner of a rectangle to the opposite corner is called the
 A signature written across the back of a check is called an
 The least common denominator of $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{6}$ is
 The square of 15 is
 When one number is divided by another, the result is called the
 An improper fraction is
 A mixed number is
 When the interest is added to the principal, the sum is called the

diagonal
 60
 quotient
 225
 $15\frac{3}{4}$
 amount
 $\frac{16}{5}$
 indorsement
 $\frac{7}{13}$
 80

28 Mr Jones paid \$4500 for a farm. He paid \$500 for repairs on the building and then sold the farm for \$6000. Find the per cent of profit on the total cost. [10]

29 A clerk in a store receives a salary of \$14 a week plus a commission of 2% on all sales he makes. If his sales for four weeks were \$224, \$380, \$260 and \$368, what were his total earnings for the four-week period? [10]

30 A man owns a house for which he receives \$35 a month rent. Taxes, insurance and repairs amount to \$160 a year. He can sell the house for \$4500 and invest the money at 4%. Which will be more profitable for him, to continue to rent the house or to sell it? How much more profitable per year? [10]

31 In a certain school we find the following pupil enrolment:

Sixth grade	32 pupils
Seventh grade	36 pupils
Eighth grade	28 pupils
Ninth grade	34 pupils
Tenth grade	25 pupils
Eleventh grade	20 pupils
Twelfth grade	14 pupils

Make a bar or line graph to indicate the above facts. [10]

- 32 A dealer bought potatoes for 90 cents a bushel. He sold them for 45 cents a peck. His overhead (cost of selling) was 30 cents a bushel. Find his net gain on 75 bushels. [10]
- 33 Find the cost of a concrete walk 144 feet long and 5 feet wide at \$3.50 per square yard. [10]