

The University of the State of New York
266TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, June 17, 1936—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 4.5; 8.163; 10.01; 36 | 1.....Ans. |
| 2 Divide $\frac{3}{8}$ by 9 | 2.....Ans. |
| 3 Write in figures: one hundred twenty-seven and ninety-three thousandths. | 3.....Ans. |
| 4 Find the difference between 316 and 205.56 | 4.....Ans. |
| 5 $53238 \div .76$ | 5.....Ans. |
| 6 A chicken weighing $4\frac{1}{2}$ pounds sells for 90¢; what is the price per pound? | 6.....Ans. |
| 7 Five of the boys on a football team weigh as follows: 146, 153, 155, 160 and 161 pounds. Find their average weight. | 7.....Ans. |
| 8 What number is 10% of 83? | 8.....Ans. |
| 9 If 24 is 20% of a number, find the number. | 9.....Ans. |
| 10 Find the value of x in the proportion 4:56::8: x | 10.....Ans. |
| 11 Add $3\frac{1}{4}$; $2\frac{7}{8}$; $4\frac{3}{8}$; $3\frac{5}{16}$ | 11.....Ans. |
| 12 Find the perimeter of an equilateral triangle whose base is 6 inches. | 12.....Ans. |
| 13 Write $\frac{1}{8}$ as a decimal. | 13.....Ans. |
| 14 In drawing plans, an architect uses the scale $\frac{1}{8}$ inch = 1 foot; how long a line must he draw to represent 40 feet? | 14.....Ans. |
| 15 What is the interest on \$300 for 2 months at 6%? | 15.....Ans. |
| 16 Write in figures: one half of one per cent. | 16.....Ans. |
| 17 $80\% = (\frac{8}{100}; .08; \frac{4}{5})$. Which of the expressions in parenthesis is correct? | 17.....Ans. |
| 18 Find the gain on a bushel of peaches bought for \$2.40 and sold for 10¢ a quart. | 18.....Ans. |
| 19 How many pints are there in 25 gallons? | 19.....Ans. |
| 20 Find the diameter of a circle that has a circumference of 88 inches. | 20.....Ans. |
| 21 After spending $\frac{2}{3}$ of his money for school supplies, John had \$6 left; how much had he at first? | 21.....Ans. |
| 22 Mary's standing on a spelling test was 88%; if there were 50 words in the test, how many did Mary miss? | 22.....Ans. |
| 23 A tax rate of 9 mills on \$1 is the same as what rate on \$1000? | 23.....Ans. |
| 24 In division, the number divided is called (the dividend, the divisor, the quotient). Which of the expressions in parenthesis is correct? | 24.....Ans. |
| 25 How many square feet of linoleum will be required to cover the floor of a room 18 feet by 24 feet? | 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 man bought a house and lot for \$5000. He spent \$1000 on repairs and \$300 for grading and planting. At what price should he sell the house in order to make a profit of 10% on the total cost? [10]

27 A dealer wishes to buy some tables. J. C. Hunter offers some at \$64 with a discount of 20%. Smith & Co. offers similar tables at \$60 with discounts of 15% and 2%. Which is the better offer [4]? How much better [6]?

28 Make a graph to represent the following average daily temperatures in Minneapolis for the first six days of last January: [10]

January 1	+12°
January 2	+5°
January 3	0°
January 4	+10°
January 5	+16°
January 6	+14°

29 A rural school district needs to raise \$3420 on an assessed valuation of \$456,000.

a Find the tax rate per thousand. [5]

b Find Mr Benson's total tax if he owns a store assessed for \$9000 and a house assessed for \$3000. [5]

30 Charles bought papers at the rate of \$2.30 per 100, and sold them at 3¢ each. One week his sales were as follows: Monday 85, Tuesday 88, Wednesday 90, Thursday 102, Friday 106, Saturday 119. What was his profit for the week? [10]

31 Copy on your answer paper the expressions in column I and after each write the word or expression selected from column II that matches it. [10]

Column I

Money paid for the use of money
Result found by subtraction
Result found by multiplication
A number exactly divisible by 2
A mile
An angle of 90°
Area of a circle
The square root of 225
A six-sided figure
Deduction from the amount of a bill

Column II

even number
hexagon
15
a right angle
remainder
interest
product
discount
 πR^2
5280 feet

32 Mr James bought a used automobile for \$450. If Mr James had paid cash, he would have received 10% discount. Instead, he paid \$100 down and gave a promissory note for 6 months at 6% for the balance. How much could he have saved by paying cash? [10]

33 Mrs White took out a 20-year endowment insurance policy for \$5000 at an annual rate of \$44 a thousand. During the 20 years the dividends paid her amounted to \$625.

a What was the annual premium on this policy? [4]

b At the end of 20 years what was the amount of the premiums less the dividends? [4]

c At the end of 20 years how much would Mrs White be entitled to receive on the face of the policy? [2]