

The University of the State of New York
259TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Monday, January 22, 1934 — 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 should be allowed. Each answer must be reduced to its simplest form.

- 1 Divide 1.95489 by .321 1.....Ans.
- 2 Add 3.1415; 41.05; 371.4; 362; .45 2.....Ans.
- 3 Find the value of x in the proportion $x:32::5:8$ 3.....Ans.
- 4 Find the difference between 794.063 and 370.506 4.....Ans.
- 5 What is the product of 42.46 and .479? 5.....Ans.
- 6 How many times is .25 contained in 40? 6.....Ans.
- 7 What per cent of 18 is 6? 7.....Ans.
- 8 Add $4\frac{1}{4}$; 16; $2\frac{3}{8}$; $145\frac{1}{2}$ 8.....Ans.
- 9 $17\frac{1}{2} \div 1\frac{3}{4}$ 9.....Ans.
- 10 $14\frac{2}{3} \times 153$ 10.....Ans.
- 11 Square 150 11.....Ans.
- 12 Find the area of a triangle whose base is 20 feet and whose altitude is 18 feet. 12.....Ans.
- 13 Write in figures: three hundred seventy-five thousand and three hundred seventy-five thousandths. 13.....Ans.
- 14 A gallon is how many times larger than a pint? 14.....Ans.
- 15 What will 5500 bricks cost at \$16 per M? 15.....Ans.
- 16 In the number 375.156, what name is given to the third place to the left of the decimal point? 16.....Ans.
- 17 What per cent of a gallon is 3 quarts? 17.....Ans.
- 18 Write 5% as a decimal. 18.....Ans.
- 19 Find the number of feet in .6 of a mile. 19.....Ans.
- 20 At 23 cents a dozen, what is the cost of two crates of eggs, each containing 30 dozen? 20.....Ans.
- 21 What is the interest on \$800 for 4 months at 6%? 21.....Ans.
- 22 What will 2 dozen grapefruit cost at the rate of 4 grapefruit for a quarter? 22.....Ans.
- 23 What is the cost of 12 ounces of cheese at 20 cents a pound? 23.....Ans.
- 24 What is the cost of $\frac{5}{8}$ of a yard of silk at \$1.12 a yard? 24.....Ans.
- 25 At 50 cents an hour, how much will a man earn in 5 days if he works 6 hours a day? 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 On a given map the distance between two cities is $\frac{3}{8}$ of an inch. The scale to which the map is drawn is 40 miles to the inch. How far apart are the two cities? [5]
b How far apart on the same map would two cities be that are 100 miles distant from each other? [5]
- 27 Mary Brown sells caps and receives a commission of 20% on her total sales. She inserted an advertisement in the school paper for two issues at 50 cents per issue. She sold 6 dozen caps for boys at 75 cents each, and 110 caps for girls at 95 cents each. What was her net income? [10]
- 28 Charles King, a high school pupil, earns \$2.35 every week by his morning paper route. He also works after school and on Saturday delivering orders for a grocery store. For this he receives 10 cents an order and averages 21 orders a week. Each week he gives 20 cents to his church, and every Saturday night he pays 25 cents to go to the movies. He wants to buy a radio that costs \$20. How many weeks will it take him to save enough money to buy the radio? [10]
- 29 The cost of a house is \$6300. The assessed valuation is $\frac{3}{8}$ of the cost. If the tax rate is \$25 per thousand, what will be the amount of taxes paid? [10]
- 30 How much must be saved a month to pay the yearly premium on a \$5000 life-insurance policy if the rate of premium is \$28.80 on a thousand? [10]
- 31 A school teacher receives an annual salary of \$1300. She spends \$650 a year for board, room and laundry, \$245 a year for clothing and \$275 for education and travel. What per cent of her salary is left? [10]
- 32 The enrolment of pupils in a certain school for the past five years has been as follows:
- | | | | |
|-----------|-----|-----------|-----|
| 1929..... | 300 | 1932..... | 475 |
| 1930..... | 350 | 1933..... | 550 |
| 1931..... | 425 | | |
- Show these facts by means of a bar or line graph. [10]
- 33 A man owns a house which he rents for \$40 a month. Taxes, insurance and repairs amount to \$175 for one year. He can sell the house for \$5000 and invest the money at $4\frac{1}{2}\%$. Which will be more profitable for him, to rent the house or to sell it [2]? How much more profitable for one year [8]?
- 34 Mary Benson wishes to buy a bicycle. J. C. Smith & Company offers one at \$40.50, less a cash discount of 2%. The Brown Company offers a similar bicycle at a list price of \$48, with a discount of 25% and a second discount of 10%. Which firm makes the better offer [2]? How much better [8]?