

The University of the State of New York
269TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, June 16, 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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Wednesday, June 16, 1937

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 \$2.05; \$.46; \$3.30; \$16.00 | 1..... <i>Ans.</i> |
| 2 From $62\frac{1}{3}$ subtract $27\frac{1}{6}$ | 2..... <i>Ans.</i> |
| 3 65.84×5.06 | 3..... <i>Ans.</i> |
| 4 $\frac{3}{8} \div \frac{1}{4}$ | 4..... <i>Ans.</i> |
| 5 Add $3\frac{1}{2}$; $4\frac{1}{2}$; $2\frac{3}{8}$; $9\frac{1}{8}$ | 5..... <i>Ans.</i> |
| 6 $1605862 - 739785$ | 6..... <i>Ans.</i> |
| 7 Divide 6.5224 by 2.48 | 7..... <i>Ans.</i> |
| 8 Find the value of x in the proportion $15 : 3 :: x : 2$ | 8..... <i>Ans.</i> |
| 9 Write in figures: two thousand four and twenty-four thousandths. | 9..... <i>Ans.</i> |
| 10 The diameter of a circle is 35 inches; what is the circumference? | 10..... <i>Ans.</i> |
| 11 Ben's scores on five arithmetic tests were 80, 75, 92, 76 and 82; what was his average score? | 11..... <i>Ans.</i> |
| 12 A square floor has an area of 256 square feet; how long is one side? | 12..... <i>Ans.</i> |
| 13 What is the cost of 12 ounces of steak at 44 cents a pound? | 13..... <i>Ans.</i> |
| 14 Find the area of a triangle that has a base of 16 feet and an altitude of 12 feet. | 14..... <i>Ans.</i> |
| 15 In an eighth grade with an enrolment of 40 pupils, 5% were absent in May. How many pupils were absent? | 15..... <i>Ans.</i> |
| 16 How many square yards of carpet will be required to cover a floor 4 yards long and 3 yards wide? | 16..... <i>Ans.</i> |
| 17 At the rate of three for a quarter, what will a dozen grapefruit cost? | 17..... <i>Ans.</i> |
| 18 How many feet are there in $\frac{7}{8}$ of a mile? | 18..... <i>Ans.</i> |
| 19 What will be the cost of 3500 pounds of coal at \$12 a ton? | 19..... <i>Ans.</i> |
| 20 The price of gasoline which sells at 16 cents a gallon includes a tax of 4 cents. What per cent of the selling price is the tax? | 20..... <i>Ans.</i> |
| 21 If a book listed at \$2.50 is sold at a discount of 20%, how much is the discount? | 21..... <i>Ans.</i> |
| 22 Which of the following indicates what per cent 9 is of 54: $\frac{1}{6}$; 6; $16\frac{2}{3}$; .06? | 22..... <i>Ans.</i> |
| 23 Square 42 | 23..... <i>Ans.</i> |
| 24 At 60 cents an hour how much does a man earn by working 6 hours a day for 5 days? | 24..... <i>Ans.</i> |
| 25 Which is larger, $\frac{4}{8}$ or 65%? | 25..... <i>Ans.</i> |

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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 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

- Lines drawn in the same direction so that they will never meet
- An angle of 90°
- The boundary line of a plane figure
- The longest side of a right triangle
- An angle greater than a right angle
- A plane figure bounded by three lines
- A straight line drawn from the center of a circle to the circumference
- An angle less than a right angle
- Anything that has length, breadth and thickness
- A plane figure bounded by a curved line every point of which is equally distant from the center

Column II

- perimeter
- obtuse angle
- parallel lines
- circle
- radius
- solid
- right angle
- hypotenuse
- triangle
- acute angle

27 Mr Gray insured his house for \$6000. At the rate of 24 cents per \$100, what was the yearly premium [5]? How much could he save by paying for a period of three years if the three-year premium is $2\frac{1}{2}$ times the yearly premium [5]?

28 Charles Watson receives 40 cents an hour for selling milk and works 8 hours a day. He also receives a commission of $1\frac{1}{2}$ cents a quart on all milk above 100 quarts that he sells each day. What is his pay for six days if his sales are as follows: Monday, 90 quarts; Tuesday, 113 quarts; Wednesday, 111 quarts; Thursday, 120 quarts; Friday, 130 quarts; Saturday, 134 quarts? [10]

29 A real-estate broker sold a house for \$6200. His commission was 5% on the first \$1000 and 2% on the remainder.

a How much was his commission? [5]

b How much should he remit to the owner of the property? [5]

30 Mr Brown found that he could buy a radio listed at \$80 with a cash discount of 3% or a similar radio listed at \$100 with discounts of 15% and 10%. Which is the better offer [2]? How much better is it [8]?

31 This is the record of the daily temperature at noon one week last spring.

Monday	64°
Tuesday	68°
Wednesday	50°
Thursday	61°
Friday	70°

Show these facts by means of a bar or line graph. [10]

32 A boy collects old newspapers, paying 15 cents per 100 pounds, and sells them to a furniture factory for \$9 per ton. In one week he handled 4000 pounds. What was his net profit from handling newspapers? [10]

33 A community with an assessed valuation of \$1,258,476 is required to raise \$15,730.95 for its schools.

a What tax rate must be levied? [6]

b What is the amount of tax that Mr Baker will be asked to pay on his house if it is assessed at \$6400? [4]

34 Mr Harry Moore borrowed \$50 from Mr Richard White. Mr Moore gave Mr White a note dated March 1, 1937, and due in 90 days with interest at 6%.

a Write the note, placing before the date the name of the place in which you live. [6]

b How much was the interest? [2]

c What was the total amount that Mr Moore had to pay Mr White when the note came due? [2]