

The University of the State of New York

274TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Monday, January 23, 1939 — 9.15 a. m. to 12.15 p. m., only

Fill in the following lines:

Name of pupil.....Name of school.....

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 Find the sum of $2\frac{1}{4}$; $3\frac{1}{3}$; $1\frac{1}{2}$ 1.....Ans.
- 2 Find the total of the following sales slips: \$34.57; \$26.42; \$8.88; \$94; \$52.64 2.....Ans.
- 3 From $5\frac{1}{3}$ subtract $2\frac{1}{2}$ 3.....Ans.
- 4 Find the product of $3\frac{3}{4}$ and $\frac{4}{5}$ 4.....Ans.
- 5 Divide $2\frac{2}{3}$ by $5\frac{1}{2}$ 5.....Ans.
- 6 What per cent of a pound of butter is 12 ounces? 6.....Ans.
- 7 Write 8% as a decimal. 7.....Ans.
- 8 How many pint baskets can be filled from one peck of cherries? 8.....Ans.
- 9 How much will $3\frac{1}{4}$ yards of woolen goods cost at \$6.40 a yard? 9.....Ans.
- 10 Find the cost of a dozen cans of corn if 3 cans cost 27 cents. 10.....Ans.
- 11 Find the number of square yards in a rug 12 feet by 18 feet. 11.....Ans.
- 12 Write in figures: three hundred seven and seventy-three thousandths. 12.....Ans.
- 13 A boys' baseball team during a summer lost 9 games and won 21 games. What percentage of the games did they win? 13.....Ans.
- 14 At 60 cents an hour, how much will a man earn in 6 days if he works 5 hours a day? 14.....Ans.
- 15 If 5 men can do a piece of work in 6 days, in how many days can 10 men do the same work at the same rate? 15.....Ans.
- 16 In tests for 5 consecutive weeks Charles received averages of 94%, 62%, 88%, 85% and 91%; what was his average for the five weeks? 16.....Ans.
- 17 An aviator climbs to an altitude of 10,566 feet. Is this distance more or less than 2 miles? 17.....Ans.
- 18 The scale of miles on a certain map is 1 inch = 40 miles. What is the distance between two cities that are $3\frac{3}{4}$ inches apart on the map? 18.....Ans.
- 19 If a car used 48 gallons of gasoline during a trip of 768 miles, how many miles did it average per gallon of gasoline? 19.....Ans.
- 20 A bicycle listed at \$32 was sold at a discount of 10%; what was the selling price? 20.....Ans.
- 21 The perimeter of a square field is 184 rods; how many rods long is each side? 21.....Ans.
- 22 Find the interest on \$240 for 4 months at 6%. 22.....Ans.
- 23 In a school of 750 pupils 2% have been absent during the month. How many pupils have been absent? 23.....Ans.
- 24 Find the diameter of a circle whose circumference is 44 inches. 24.....Ans.
- 25 A boy worked from 4:30 to 6:00 every afternoon for six days at 20 cents an hour. How much did he earn? 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 On December 1, Mr Peterson had a balance of \$457.60 in the bank. During the month he deposited checks and money as follows: \$75.48; \$36.92; \$145.60; \$25.35; \$89.13. During the same month he drew checks as follows: \$15.30; \$79.80; \$42.21; \$84.35; \$76.09. What was his balance in the bank at the end of December? [10]

27 A real-estate broker sold a house for a client for \$6900. His commission was 5% for the first \$5000 and $2\frac{1}{2}\%$ for any amount above \$5000.

- a Find the broker's commission. [6]
b Find the net return to the owner. [4]

28 A man sells radios to retail merchants. He gets a regular salary of \$25 a week. In addition, he is paid a 3% commission on all weekly sales above \$1000. If his sales amounted to \$1750 last week, how much did he earn altogether? [10]

29 Mrs Wolverton bought a case of 24 cans of peas. She was allowed a discount of 15% for buying a large quantity. The peas regularly sold for 20 cents a can. How much did the case of peas cost her? [10]

30 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

Result of subtraction
Fee paid for insurance
Circumference of circle
Deduction from amount of bill
Angle of 90°
Fee for use of money
Square of 1.2
Lower half of fraction
Number of cubic feet in a cubic yard
Pi (π)

Column II

discount
right angle
interest
27
3.1416 or $\frac{22}{7}$
denominator
 πD or $2\pi R$
premium
1.44
remainder

31 Mr Wagner purchased a new automobile at a list price of \$864. He paid one third of the purchase price in cash and agreed to pay a finance company the balance and a total of 6% in addition to the unpaid balance.

- a How much did the automobile cost Mr Wagner? [5]
b How much could he have saved by paying cash in full? [2]
c If he paid the balance, including 6% finance charges, in 12 equal monthly instalments, how much did he pay monthly? [3]

32 A school district with an assessed valuation of \$2,886,400 required \$36,080 for its school system.

- a What would be the tax rate per \$1000? [5]
 b A homeowner in the district valued his property at \$6000. The house was assessed at 60% of this value. For how much was it assessed? [3]
 c What was the amount of school tax on this property? [2]

33 Last June a boy in a science class noted temperature readings for a given day. His notebook showed the following times and temperatures:

6 a. m.	58°
9 a. m.	62°
12 noon	70°
3 p. m.	82°
6 p. m.	65°

Indicate the above information by a bar or a broken-line graph. [10]

34 Some boys plan to organize a rifle club. It is estimated that they will need the following: 2 rifles costing \$12.50 apiece, 500 targets at \$1 per hundred, incidental supplies and equipment at an estimated cost of \$12. If there are 12 boys in the club, how much will each boy have to pay? [10]