

The University of the State of New York

272D HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, June 22, 1938 — 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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Wednesday, June 22, 1938

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 From $8\frac{5}{8}$ subtract $2\frac{3}{4}$ | 1.....Ans. |
| 2 Multiply 56.28 by 703 | 2.....Ans. |
| 3 405867 — 137978 | 3.....Ans. |
| 4 Add \$208.27; \$16.18; \$125.75; \$1.49 | 4.....Ans. |
| 5 Write $\frac{7}{8}$ as a decimal. | 5.....Ans. |
| 6 Divide 14.762 by 1.22 | 6.....Ans. |
| 7 $5\frac{1}{2} + 2\frac{5}{6} + 4\frac{3}{4} + 7\frac{1}{2}$ | 7.....Ans. |
| 8 One side of a square is 5 inches. What is the perimeter? | 8.....Ans. |
| 9 Find the interest on \$500 for 1 year at 6%. | 9.....Ans. |
| 10 What is 25% of 356? | 10.....Ans. |
| 11 How many quarts of milk will be required by a school lunchroom to serve one pint of milk to each of 32 pupils? | 11.....Ans. |
| 12 Find the circumference of a circle which has a diameter of 7 inches. | 12.....Ans. |
| 13 The side of a square is 6.5 inches. Find the area of the square. | 13.....Ans. |
| 14 Which is the greatest, a right angle, an obtuse angle or an acute angle? | 14.....Ans. |
| 15 How much will a 5-dollar tennis racket cost if it is bought at a discount of 10%? | 15.....Ans. |
| 16 Of the 40 children in an eighth grade, 60% are boys. How many boys are there? | 16.....Ans. |
| 17 Find the value of x in the following proportion:
$9 : x :: 16 : 48$ | 17.....Ans. |
| 18 A man has \$1000. He spends \$475.75 for a car. How much money has he left? | 18.....Ans. |
| 19 Irving answered correctly 20 questions out of 25 on an arithmetic test; what per cent did he answer correctly? | 19.....Ans. |
| 20 How much change will I receive from a 5-dollar bill if I buy 10 gallons of gasoline at 18 cents a gallon? | 20.....Ans. |
| 21 What would be the cost of 40 pencils at the rate of 2 for 5 cents? | 21.....Ans. |
| 22 $\frac{1}{8}$ is the same as ($12\frac{1}{2}$; $12\frac{1}{2}\%$; $.12\frac{1}{2}\%$; 12.5). Which of the expressions in parenthesis is correct? | 22.....Ans. |
| 23 Find the cost of $2\frac{3}{4}$ pounds of meat at 32 cents a pound. | 23.....Ans. |
| 24 Find the average of the following marks: 85, 75, 90, 80, 85. | 24.....Ans. |
| 25 Write in figures: two hundred six and twenty-six hundredths. | 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 Mr Jones purchased for \$14 an automobile tire that was guaranteed for two years of normal driving. After 18 months of normal driving the tire wore out.

a What fractional part of the guaranteed service did the tire give? [5]

b How much allowance should Mr Jones receive toward the purchase of a new tire? [5]

27 Mr Preston found that he could purchase a new radio for \$75 cash or he could buy the same radio by paying \$10 down and \$5 a month for 14 months. Which is the better offer [2]? How much better [8]?

28 A store building valued at \$16,000 was insured for $\frac{3}{4}$ of its value. The insurance rate was 90 cents on \$100 of insured value for three years. What was the cost of the insurance for three years? [10]

29 The neighborhood grocery sells small cans, containing $1\frac{1}{2}$ cupfuls of corn, at 12 cents per can. The store also sells large cans, containing $3\frac{3}{8}$ cupfuls of corn, at 30 cents per can. Mrs Green decided to spend 60 cents for corn.

a Would she receive more corn by buying the small or the large cans? [2]

b How much more? [8]

30 A train leaves Albany at 11:00 a. m. and arrives at its destination at 5:30 p. m. The railroad distance between the two points is 325 miles. Find the following:

a The length of time, expressed in hours and minutes, for the trip [5]

b The average rate of speed, expressed in miles per hour [5]

31 Margaret wishes to make some taffy for a birthday party. She decides that she will need 100 pieces of taffy, but the recipe given below makes only 50 pieces. Rewrite the recipe so that it will make the required 100 pieces. [10]

Molasses Taffy
(to make 50 pieces)

1 cup granulated sugar	$\frac{3}{4}$ cup water
$\frac{1}{2}$ cup brown sugar	$\frac{1}{4}$ cup butter
2 cups molasses	$\frac{1}{8}$ teaspoonful baking soda
	$\frac{1}{4}$ teaspoonful salt

32 A traveling salesman drives his car 30,000 miles in a year. If he pays 4 cents tax on each gallon of gasoline that he uses and his car travels 15 miles to the gallon, find the following:

a The number of gallons of gasoline that he uses in one year [5]

b The amount of the gasoline tax that he will pay during a period of one year [5]

33 A certain two-teacher school district has an assessed valuation of \$194,280. In order to pay the expenses of the district it has been found necessary to raise \$1359.96 by tax.

a Find the tax rate in dollars per \$1000 of assessed valuation. [5]

b If the collector receives as his fee 1% of all taxes collected, find the amount of his fee if he succeeds in collecting all of the taxes. [5]

34 A commission dealer sold a carload of produce for \$460.80. The freight bill was \$40, cartage \$12.50 and insurance \$7.50. He charged a commission of 5%.

a What was the amount of the commission? [4]

b What was the amount of the other expenses? [1]

c What was the total expense, including commission? [1]

d How much should the commission dealer send the shipper as proceeds? [4]