

The University of the State of New York
256TH HIGH SCHOOL EXAMINATION
ELEMENTARY ALGEBRA
Monday, January 23, 1933 — 9.15 a. m. to 12.15 p. m., only

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 place the answer to each question in the space provided; 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.

ARITHMETIC

Monday, January 23, 1933

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.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1 From 475.1306 take 217.94 | 1.....Ans. |
| 2 Write in figures: one thousand four hundred twenty-three thousandths. | 2.....Ans. |
| 3 Add $1\frac{1}{2}$; $5\frac{1}{2}$; $6\frac{1}{2}$ | 3.....Ans. |
| 4 Square 81 | 4.....Ans. |
| 5 What per cent of 400 is 24? | 5.....Ans. |
| 6 What is the product of 3.5 and 51.2? | 6.....Ans. |
| 7 Express $\frac{3}{8}$ as per cent. | 7.....Ans. |
| 8 Divide 16.475 by 2.35 [Find answer correct to two decimal places.] | 8.....Ans. |
| 9 What is the difference between $5\frac{1}{2}$ and $3\frac{3}{4}$? | 9.....Ans. |
| 10 Write $87\frac{1}{2}\%$ as a decimal. | 10.....Ans. |
| 11 $11\frac{2}{3} \div \frac{5}{8}$ | 11.....Ans. |
| 12 Find the sum of 4.56; 8.213; .614; 37.2 | 12.....Ans. |
| 13 Find the value of x in the proportion 7:35: :63: x | 13.....Ans. |
| 14 Write 1.75 as a whole number and a common fraction in its lowest terms. | 14.....Ans. |
| 15 What is the difference in time between two places that have a difference of 15 degrees in longitude? | 15.....Ans. |
| 16 If a quart of milk costs 14 cents, what will two gallons cost? | 16.....Ans. |
| 17 Multiply $4\frac{7}{8}$ by 24 | 17.....Ans. |
| 18 Jack worked from 1.30 until 5 p. m. and received 20 cents an hour. How much did he earn? | 18.....Ans. |
| 19 Find the number of square yards in a rug 12 feet by 18 feet. | 19.....Ans. |
| 20 What will an electric-light cord 5 yards long cost at 8 cents a foot? | 20.....Ans. |
| 21 A pair of shoes marked \$6 was sold at a reduction of 25%; what was the selling price? | 21.....Ans. |
| 22 The scale of miles on a certain map is 1 inch = 100 miles. What is the distance in miles between two cities that are $3\frac{1}{4}$ inches apart on the map? | 22.....Ans. |
| 23 What will it cost to send a 12-word telegram if the first 10 words cost 35 cents and each additional word costs 3 cents? | 23.....Ans. |
| Complete the following statements: | |
| 24 In a rectangle the . . . sides are equal. | 24.....Ans. |
| 25 There are . . . feet in a mile. | 25.....Ans. |

ARITHMETIC

Monday, January 23, 1933

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 An agent bought 300 barrels of apples for a fruit dealer at a cost of \$2.50 a barrel. The agent charged the dealer $1\frac{1}{2}\%$ commission for buying the apples. Transportation charges were 60 cents a barrel. What did the apples cost the dealer? [10]

27 Mr Smith bought a lot for \$1200 and built a house costing \$7100 on it. He spent \$300 for grading and planting the lot. The property was then sold through a broker for \$10,000. The broker charged Mr Smith 4% commission. What did Mr Smith make on the sale? [10]

28 An eighth-grade class bought a case of candy bars for \$20. In the case were 50 cartons, each containing 10 bars. The bars were sold at 5 cents each. How much did the class make? [10]

29 A certain school district has property with an assessed valuation of \$105,600. The amount to be raised for schools is \$1584. Mr Jones has a farm assessed at \$2300. What is his school tax? [10]

30 a What is a promissory note? [2]

b What is meant by the *maker*? [1]

c Who is the *payee*? [1]

d What is meant by the *face of the note*? [1]

e Draw up a promissory note for \$500 for three months, with interest at 6%. Use John Smith as the maker and James Jones as the payee. [5]

31 Mr Russell is the agent for a certain household machine that sells for \$79.50. On each machine sold, Mr Russell receives \$9.50. He also receives 50 cents for each demonstration, whether a sale is made or not. What should Mr Russell receive for a week's work in which he sold three machines, and made demonstrations as follows: Monday 4, Tuesday 7, Wednesday 8, Thursday 6, Friday 9, Saturday 2? [10]

32 Make out a bill for the following items bought of James Brown & Company by Mrs Alfred Black on Jan. 3, 1933: 2 pounds of butter at 34 cents a pound, 6 cans of soup at the rate of 3 cans for a quarter, 1 sack of flour at 87 cents, and 2 dozen eggs at 35 cents a dozen. Receipt the bill, which was paid on the day the food was bought. [10]

33 A school board decides to build a fence around a rectangular playground 170 yards long and 120 yards wide. The fence will cost \$1.15 per foot. Find the cost. [10]

34 Jack Tompkins wishes to make a trip to a winter resort that is 255 miles from his home. He has a car that uses gasoline at the rate of 17 miles to the gallon. Gasoline costs 16 cents a gallon and oil 25 cents a quart. He uses 6 quarts of oil on the trip. Find the cost of the trip to and from the resort. [10]