

The University of the State of New York

271ST HIGH SCHOOL EXAMINATION

ARITHMETIC

Wednesday, January 26, 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.

ARITHMETIC

Wednesday, January 26, 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.

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|---|-------------|
| 1 Find the sum of $12\frac{1}{8}$; $3\frac{3}{8}$; $7\frac{1}{2}$; $\frac{5}{8}$ | 1.....Ans. |
| 2 Add 4.6; .035; 7.28; 24; 8.085 | 2.....Ans. |
| 3 From $5\frac{5}{8}$ subtract $2\frac{3}{4}$ | 3.....Ans. |
| 4 Find the product of $2\frac{2}{3}$ and $4\frac{1}{2}$ | 4.....Ans. |
| 5 Divide $3\frac{3}{8}$ by $2\frac{1}{4}$ | 5.....Ans. |
| 6 Find the difference between 12.35 and 4.625 | 6.....Ans. |
| 7 If apples are sold at the rate of 3 for 5 cents, what will one dozen apples cost? | 7.....Ans. |
| 8 Find the value of x in the proportion $12 : 3 :: x : 5$ | 8.....Ans. |
| 9 Write in figures: twelve thousand eight and sixteen hundredths. | 9.....Ans. |
| 10 Write as a decimal: one half of one per cent. | 10.....Ans. |
| 11 Charles wrote 25 words in a spelling test and received a grade of 92%. How many words did he misspell? | 11.....Ans. |
| 12 In one week Stanley received the following grades in arithmetic: 88, 75, 92, 75, 100. Find his average grade for the week. | 12.....Ans. |
| 13 How many square yards of linoleum will be required to cover the floor of a kitchen 12 feet long by 9 feet wide? | 13.....Ans. |
| 14 What per cent of 32 is 4? | 14.....Ans. |
| 15 Edward worked from 1.00 p. m. until 5.30 p. m. at 30 cents an hour. How much did he earn? | 15.....Ans. |
| 16 How much change should you receive from one dollar in payment for one pound 4 ounces of sirloin steak at 60 cents a pound? | 16.....Ans. |
| 17 Find the selling price of a blanket listed at \$18 and sold at a discount of 20%. | 17.....Ans. |
| 18 A triangle has a base of 24 inches and an altitude of 16 inches. Find the area. | 18.....Ans. |
| 19 Square .36 | 19.....Ans. |
| 20 $\frac{1}{4} = (.033\frac{1}{3}\% ; .33\frac{1}{3}\% ; 33\frac{1}{3} ; .03\frac{1}{3} ; .33\frac{1}{3})$. Which of the expressions in parenthesis is correct? | 20.....Ans. |
| 21 Find the interest on \$360 for one year at 4%. | 21.....Ans. |
| 22 How many pieces of metal, each $\frac{3}{8}$ of an inch long, can be cut from a metal strip 45 inches long? | 22.....Ans. |
| 23 A baseball team won 8 games, which was 50% of the total number of games played. How many games did the team play? | 23.....Ans. |
| 24 A road map was drawn at a scale of 10 miles to an inch; find the distance in miles between two towns 6 inches apart on the map. | 24.....Ans. |
| 25 Find the cost of 3000 pounds of coal at \$10 a ton. | 25.....Ans. |

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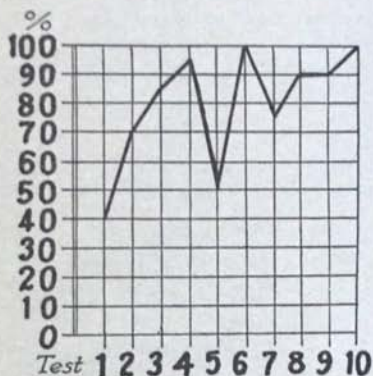
- Write at top of first page of answer paper to part II (a) name of school where you have studied, (b) grade of work completed in arithmetic.
- The minimum requirement is the completion of the work of the first half of the eighth grade in arithmetic.

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 Furniture listed at \$2400 is needed for a new office. The Jones Supply Company quotes a single discount of 45%; the Smith Furniture Company quotes 30% and 20% off.
- What net price does the Jones Company offer? [4]
 - What net price does the Smith Company offer? [4]
 - How much would the buyer save by accepting the better of the two offers? [2]
- 27 A farmer shipped to a commission merchant in New York 2460 bushels of apples. Freight and cartage amounted to \$365.40. If the apples sold for an average of \$1.20 a bushel and the commission merchant charged 4% for his services, what amount should he send the grower? [10]
- 28 In 1936, Mr Smith purchased a new car for which he paid \$756. He drove it for a total distance of 15,240 miles during the year. At the end of the year the car was worth \$525. During the year he used 920 gallons of gasoline at an average cost of 19 cents a gallon and 56 quarts of oil at 30 cents a quart.
- What did he spend during the year for gasoline and oil? [3]
 - How much did the value of the car depreciate (decrease) in the year? [1]
 - All other car expenses totaled \$129.20. What was the total expense of the car (including depreciation) for the year? [2]
 - Find to the nearest tenth of a cent the average cost per mile of the car for all expenses (including depreciation) for the year. [4]
- 29 A rural school district with an assessed valuation of \$1,648,560 needed to raise \$20,607 for its school system.
- What would be the tax rate per \$1000? [5]
 - The owner of a house in this district valued it at \$5000. The house was assessed at 60% of this value. For how much was it assessed? [2]
 - What was the amount of the school tax on this house? [3]
- 30 Copy and complete each of the following statements: [10]
- In a common fraction, the number below the line is called the —.
 - The bounding line of a circle is called the —.
 - An even number is a number divisible by —.
 - The numerator of a proper fraction is always — than the denominator.
 - The dividend divided by the divisor equals the —.
 - A number can be exactly divided by 5 if it ends in either — or 5.
 - The one who makes a promissory note is called the —.
 - An order on a bank to pay a specified amount of money is called a —.
 - In depositing money at a bank, a person usually fills out a —.
 - Money paid for the use of money is —.
- 31 What is the area of a lawn 50 feet by 40 feet? Allowing 1 pound of grass seed to 400 square feet, find how many pounds of seed will be required to seed the lawn. [10]

32 In a series of 10 arithmetic tests, Herbert had the marks shown on the graph below. What was his mark on *each* of the following tests: 1, 2, 5, 6, 9? [10]



33 On December 15, 1937, Mr Charles Williams, a business man, borrowed \$1500 from the First National Bank in your community. He gave the bank a promissory note, due in 90 days, with interest at 5%.

a Write the note. [5]

b Find the amount that will be due at maturity. [5]

34 George bought 10 dozen eggs from a farmer for \$2.80 and sold them at 40¢ per dozen. He spent 35¢ for carfare in selling them, and 15¢ for boxes and paper. What was his profit [6]? What was the per cent of profit on the selling price [4]?

35 Mr Gray took out a 30-year endowment policy for \$8000. The rate was \$29.50 per \$1000. How much was his yearly premium [5]? What will be the total amount paid in premiums if he lives until the policy comes due [5]?