

The University of the State of New York

327TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, June 19, 1956 — 1:15 to 4:15 p.m., only

Fill in the following lines:

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

Instructions for Part I .

Do not open this sheet until the signal is given.

All parts of the rapid calculation test are to be worked mentally and the *answers only* placed on the question paper. At the end of 15 minutes, work must stop and the sheet used for this part of the examination must then be detached from the rest of the question paper and immediately handed to the examiner.

All answers must be written with pen and ink.

Scrap paper may not be used, nor may computations be made on the question paper.

Part I

RAPID CALCULATION TEST

1-2 a Make the following extensions: [5]

- 370 bushels at 50 cents per bushel = \$.....
- 20 yards at 65 cents per yard = \$.....
- 60 gallons at \$1.25 per gallon = \$.....
- 1500 pounds at \$8 per M = \$.....
- 15 feet at 60 cents per yard = \$.....

b Compute the interest: [5]

- \$8400 for 60 days at 6% = \$.....
- \$1500 for 80 days at 3% = \$.....
- \$1600 for 30 days at 1½% = \$.....
- \$5429 for 6 days at 6% = \$.....
- \$180 for 60 days at 5% = \$.....

c Underscore the correct answer for *each* of the following problems: [6]

- ¼% of \$1200 is (\$300; \$48; \$12; \$3).
- 10% of \$3980 is approximately (\$4000; \$400; \$40; \$4).
- If an article marked at \$80 is sold for \$60, the per cent of discount given is (75%; 33½%; 25%; 20%).
- 16⅓% more than 480 is (80; 400; 560; 2880).
- 92.6% expressed as a decimal to the *nearest hundredth* is (.92; .926; .93; 92.60).
- 2.764 multiplied by 1000 is (2764; 276.4; 27.64; .2764).

d Complete the following table of weekend sales in a food store: [No partial credit.] [4]

<i>Department</i>	<i>Friday</i>	<i>Saturday</i>	<i>Totals</i>
Groceries	\$486	\$517	
Meat	715	768	
Dairy Products	291	327	
TOTALS			

BUSINESS ARITHMETIC

Tuesday, June 19, 1956

Write at top of first page of answer paper (a) name of school where you have studied, (b) number of weeks and recitations a week in business arithmetic.

The time requirement is four or five recitations a week for a school year.

Answer questions 1-2 in part I, four questions from part II, four questions from part III and four questions from part IV. Unless otherwise stated, all operations except mental ones are to be shown written in ink. Practical business methods must be used in solutions.

Part I, 1-2 Rapid calculation test on attached sheet. [20]

Part II

Answer any four questions from this part. All work must be shown.

- 3 Answer all parts of this question. [Two credits for each correct answer; no partial credit.] [10]
- a On April 3, Phillips borrowed \$1000 on an interest-bearing promissory note. On June 19, he repaid the loan and the interest. For how many days did he pay interest on this loan?
 - b A table has been selling for \$50 less 10%. What additional per cent of discount must be given to reduce the selling price to \$36?
 - c An invoice for goods bought on October 27 has terms of $\frac{2}{10}, \frac{1}{20}, N/60$. What is the last possible date on which this invoice may be paid in order to get the largest cash discount?
 - d Johnston's electric meter read 7921 kilowatt-hours on March 1. A month later it read 8215 kilowatt-hours. Johnston was charged \$.04 per kilowatt-hour used. What was the total amount of his electric bill for the month?
 - e Mrs. Jones plans to spend an average of \$15 per week for food for her family. During a recent four-week period, she spent \$18 for the first week, \$12.50 for the second week, and \$16.25 for the third week. How much may Mrs. Jones spend on food for the fourth week if she stays within the average limit she has set?
- 4 Answer all parts of this question. [This is an accuracy test. One credit for each correct answer; no partial credit; no credit allowed unless work is shown. Wherever necessary, reduce the answer to simplest form.] [10]
- a Add: 279.25; 12.008; 3.674; 91.5
 - b Subtract 184.79 from 362.5
 - c Multiply 164.3 by 25.7
 - d Divide 575.82 by 6.3
 - e Add: $16\frac{3}{4}$; $9\frac{1}{2}$; $21\frac{1}{2}$; $4\frac{7}{16}$
 - f Subtract $9\frac{2}{3}$ from $26\frac{1}{3}$
 - g Multiply $84\frac{1}{2}$ by $5\frac{1}{2}$
 - h Divide $19\frac{1}{2}$ by $\frac{3}{4}$
 - i Change .425 to a fraction in lowest terms
 - j Express $\frac{3}{8}$ as a decimal to the nearest hundredth

BUSINESS ARITHMETIC — *continued*

5 Using the title and information given below, prepare a bar graph to show the following facts. [To the teacher: deduct one credit for each error or omission.] [10]

BEACH MANUFACTURING COMPANY
Sales Contest Results
Week of May 7, 1956

<i>Salesman</i>	<i>Total Sales</i>
Abbott	\$560
Clark	890
Decker	700
Merton	480
Stevens	550
Vincent	940
Young	820

6 Freeman, the proprietor of a clothing store, bought 600 dresses at \$12.50 each. He sold 300 of these dresses at \$21.95 each, 250 at \$16.50 each, and the remainder at \$13.95 each. Operating expenses connected with this transaction amounted to \$2557.50. What per cent of net profit, based on the original cost of these dresses, did Freeman gain? [10]*

7 On June 1, John Field's bank statement showed a balance of \$982.50. His checkbook balance on that date was \$767.95. Checks outstanding were for \$36.50; \$89; \$11.75. Enclosed with the bank statement was a service charge slip for \$2.50 which the bank had deducted from Field's account. A deposit of \$79.80 had been omitted from the checkbook by error. Prepare a reconciliation statement and indicate the correct available checkbook or bank balance. [10]*

Part III

Answer any four questions from this part.

8 Wayne can buy air-conditioning equipment for his store from the ABC Corporation for \$2400 less 15%. No charge will be made for installation by this company. Wayne can buy similar equipment for \$2250 less 10% from Briggs Brothers, who will also charge \$30 for installation. How much will Wayne save by taking the better of the two offers? [6]*

9 Fisher insured his office building for \$35,000, at an annual premium rate of \$.49 per \$100. After he had paid five annual premiums on this policy, a fire damaged the building and Fisher was paid \$5600. How much did Fisher save by carrying insurance on this building? [6]*

10 Gordon bought stock in a corporation at a total cost, including brokerage and other expenses, of \$76 per share. This stock paid him an annual dividend of 5% on a par value of \$50 per share. What actual per cent of return did Gordon receive on his investment, to the nearest tenth of a per cent? [6]*

11 Tilden employed a commission merchant to buy apples for him. The merchant bought 640 bushels at \$3.25 per bushel, and charged Tilden 10% commission. Other expenses connected with this transaction amounted to \$23.50. What total price did Tilden pay to obtain these apples? [6]*

12 Kearney, a bankrupt, owed the following creditors:

Foster Corporation	\$2595
Morton Brothers	2887
Fiske and Son	6530
R. J. Jackson	1638

The net cash distributed to these creditors amounted to \$5050.50. What amount of money was paid to R. J. Jackson? [6]*

BUSINESS ARITHMETIC — *concluded*

Part IV

Answer any four questions from this part.

13 Fredericks and Barton are partners in a wholesale business. Their investments are \$26,000 and \$14,000 respectively. The partnership contract states that profits are to be shared in proportion to the partners' investments. Last year the firm made a net profit of \$17,960. What amount did each partner receive as his share of this profit? [4]*

14 Schuyler bought a desk for \$90. Five years later he sold it for \$49.50. What was the average annual *per cent* of depreciation on this desk? [4]*

15 Dow's New York State income-tax return last year, after all deductions for exemptions had been made, showed a net taxable income of \$1890. This amount was subject to a tax of 2% on the first \$1000 and 3% on the next \$2000 or fraction thereof. What was the total amount of Dow's New York State income tax for last year? [4]*

16 Wheeler, a factory employee, works on a 40-hour-per-week basis, with time and a half for all overtime. His regular pay rate is \$1.80 per hour. Last week he worked a total of 52 hours. The deductions from his pay amounted to \$21.65. What amount of money would Wheeler receive as take-home pay for the week, after all deductions had been made? [4]*

17 Carver paid \$49.44 for a coat. The price he paid included a 3% city sales tax based on the original marked price of the coat. What was the original marked price of this coat? [4]*

* *To the teacher:* One half the number of credits should be deducted for each different error in method. [No credit should be allowed for a solution that contains an error in method and an error in computation.]