

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

**BUSINESS ARITHMETIC**

Wednesday, August 21, 1957—8:30 to 11:30 a.m., only

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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

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1 a Subtract [2]

148  
597

b Make the following extensions: [5]

1500 pounds at \$6 per M \$.....  
 240 bushels at \$1.25 per bushel \$.....  
 30 yards at 12½¢ per yard \$.....  
 249 square feet at 5¢ per square foot \$.....  
 16½ pounds at 42¢ per pound \$.....

c Compute the interest: [5]

\$1850 for 90 days at 6% \$.....  
 \$750 for 1 year at 2% \$.....  
 \$600 for 30 days at 3% \$.....  
 \$3488 for 6 days at 6% \$.....  
 \$325 for 12 days at 6% \$.....

d Complete each of the following statements: [4]

\$4760 divided by 1000 is .... \$.....  
 ½% of \$650 is .... \$.....  
 76 inches is equal to ... feet. ....  
 48 is 20% greater than .... ..

e Complete the following summary of operating expenses: [No partial credit.] [4]

<i>Expenses</i>	<i>Dept. 1</i>	<i>Dept. 2</i>	<i>Totals</i>
Salaries	\$ 940	\$ 739	\$
Advertising	108	93	
Heat & Light	45	41	
<b>TOTALS</b>	\$	\$	\$

## BUSINESS ARITHMETIC

Wednesday, August 21, 1957 — 8:30 to 11:30 a.m., only

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

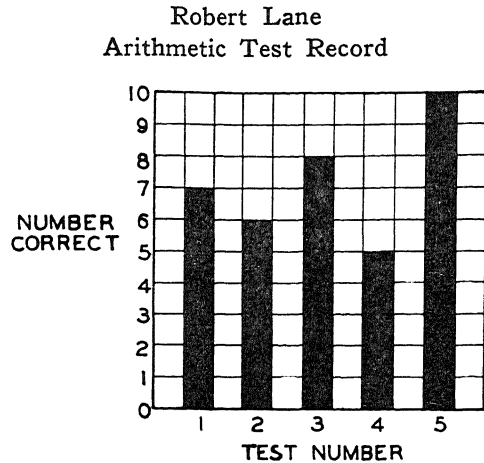
### Part II

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

- 2 Answer all parts of this question. [Two credits for each correct answer; no partial credit.] [10]
- a Smith's gas meter read 30,400 cubic feet on June 1 and 33,600 cubic feet on July 1. The rate per 1000 cubic feet was \$1.25. What was the total amount of Smith's gas bill for the month? [2]
  - b Watson insured his home for 3 years for \$15,600. The rate for the entire 3-year policy was 65 cents per \$100. What was the average annual cost of this policy to Watson? [2]
  - c In preparing a set of plans, an architect used a scale of  $\frac{1}{8}$  inch = 1 foot. How long a line would he have drawn on these plans to represent a distance of 22 feet? [2]
  - d In 1956, the population of Lakewood was 22,500. In 1957, it had increased to 27,000. What was the rate of increase in population? [2]
  - e An adding machine costs \$250 when new. After 5 years of use it had a trade-in value of \$110. What was the amount of the average annual depreciation on this adding machine? [2]
- 3 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  $\frac{1}{2}$ ,  $\frac{2}{3}$ , and  $\frac{3}{4}$
  - b Multiply  $\frac{2}{3} \times 1\frac{5}{16}$
  - c Divide  $13\frac{1}{3}$  by  $2\frac{2}{3}$
  - d Subtract  $4\frac{2}{3}$  from  $26\frac{1}{3}$
  - e Multiply  $36\frac{1}{4} \times 8\frac{2}{3}$
  - f Add 26.37; 169.8; 4.468; 44.55
  - g Subtract 367.41 from 709.9
  - h Divide 4664.88 by 11.4
  - i Multiply 37.41 by 3.5
  - j Express .325 as a common fraction in lowest terms
- 4 Samuels & Company offers to fill an order for goods at \$1475.80, less 15% and 10%. Horton & Jackson ask \$1520, less 25% discount with terms of  $\frac{2}{10}, \frac{N}{30}$  on the same order. Assuming that the customer will pay cash for this merchandise, which is the better offer? How much better? [10]
- 5 On July 1, 1957, Daniel Brown received his bank statement which showed a bank balance of \$336.64. His checkbook balance on that date was \$292.50. On comparing the statement with the checkbook, Brown found that the following items had not been recorded in the checkbook: a canceled check for \$25.82; a deposit of \$31.26; a service charge of \$2.25. The following checks were outstanding: \$15; \$9.75; \$16.20.
- a Prepare a reconciliation statement. [8]
  - b What is Mr. Brown's correct checkbook balance? [2]

6 Robert Lane took five arithmetic tests, each of which consisted of 10 questions. He made a graph showing the number of questions he had correct on each test. Study the graph and answer the following questions:

- a How many problems did Robert solve correctly on his first test? [1]
- b How many problems did Robert have wrong on his third test? [1]
- c On which test did Robert have the poorest result? [1]
- d Which was his best test? [1]
- e If 10% was given for each correct answer, what was Robert's average grade for the five tests shown on the graph? [3]
- f What grade must he receive on his next arithmetic test in order to bring his average for all *six* tests up to 75%? [3]



**Part III**

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

- 7 Thompson's income is \$320 a month. His family expenses each month are as follows: rent, \$85; gas and electricity, \$10.50; telephone, \$6.25; food,  $37\frac{1}{2}\%$  of his income; clothing and other expenses, \$810 a year. How much is he able to save annually? [6]
- 8 Harold Fisk is employed on a 40-hour per week basis, with time and a half for all overtime. His regular pay rate is \$1.60 per hour. Harold worked a total of 45 hours last week. The following deductions were made from his total earnings:  
 Social Security Taxes at the rate of  $2\frac{1}{4}\%$   
 Federal Withholding Taxes \$7.50  
 How much money did Harold Fisk receive as take-home pay? [6]
- 9 Jack Smith discounts Steven Lerner's 90-day noninterest-bearing note for \$660 on July 12 at 6%. The date of the note is June 30. Find the net proceeds of this note. [6]
- 10 An electric refrigerator is offered by one dealer for a down payment of \$40, with 18 monthly installments of \$12.50 each. A second dealer offers a similar refrigerator for a down payment of \$10, with 52 weekly installments of \$5.25 each. How much will the prospective buyer save by taking the better of the two offers? [6]
- 11 Louis Rizzo, a salesman, is paid a salary of \$45 per week. He is also paid a commission of .5% on all sales in excess of \$500 per week. During a recent week, Mr. Rizzo's sales amounted to \$826. What were Mr. Rizzo's *total earnings* for the week? [6]

BUSINESS ARITHMETIC — *concluded*

Part IV

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

- 12 Alexander drove his car 7550 miles last year. During that period he bought 420 gallons of gas at an average cost of 31 cents per gallon. He purchased 52 quarts of oil at 40 cents per quart. What was the combined cost *per mile* for gas and oil for the year? [4]
- 13 An agency that charges 8% commission collected 70% of a debt of \$800 for Alan Smith. What amount did the agency remit to Mr. Smith? [4]
- 14 The Ross Furniture Company has been selling desks at \$75, less 20%. In order to meet competition the company decides to allow a second discount so that the desks can be sold at \$55. Express as a *rate percent* the second discount that the Ross Company must offer. [4]
- 15 On July 1, 1956, Daly deposited \$4000 in the local savings bank. The bank pays interest at the rate of 3% per year compounded semiannually, adding the interest to the depositors' accounts on January 1 and July 1. How much interest did Daly earn during the year? [4]
- 16 A man insured his business property with two companies. He was insured with the Syracuse Insurance Company for \$35,000 and with the Scranton Insurance Company for \$25,000. How much should *each* company pay if the man had a fire loss of \$18,000? [4]