

The University of the State of New York
323D HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Monday, January 24, 1955—9.15 a.m. to 12.15 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 Subtract: [2]

$$\begin{array}{r} 118 \\ 87\frac{5}{8} \\ \hline \end{array}$$

b Make the following extensions: [4]

600 gallons at $66\frac{2}{3}\phi$ per gallon = \$_____

450 bushels at \$1.50 per bushel = \$_____

2500 pounds at \$8 per M = \$_____

56 quarts at $37\frac{1}{2}\phi$ per quart = \$_____

c Compute the interest: [5]

\$487.50 for 6 days at 6% = \$_____

\$1200 for 20 days at 3% = \$_____

\$60 for 97 days at 6% = \$_____

\$5600 for 30 days at $4\frac{1}{2}\%$ = \$_____

\$360 for 90 days at 2% = \$_____

d Complete *each* of the following statements: [5]

87.8% expressed as a decimal to the *nearest hundredth* is _____.

$\frac{1}{2}\%$ of \$1800 is \$_____.

If an article costing \$80 is sold for \$100, the per cent of gain, based on the cost, is _____%.

37.654 multiplied by 100 is _____.

42 inches is equal to _____ feet.

e Complete the following summary of sales: [4]

Article	Marked Price	Discount	Selling Price
Table	\$ 85	(less) \$27	\$58
Rug	110	38	
Chair	94	26	
Totals			

BUSINESS ARITHMETIC

Monday, January 24, 1955

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 Abbott went into bankruptcy owing a total of \$15,840. In settling his case, the net cash available to his creditors was \$6177.60. How many cents on the dollar would his creditors receive on their claims?
- b Phillips' gas meter read 50,700 cubic feet on October 1 and 53,500 cubic feet a month later. The rate per 1000 cubic feet was \$1.10. What was the total amount of Phillips' gas bill for the month?
- c An automobile-accessory dealer sold a set of seat covers listed at \$19.50 for \$16.25. What per cent of discount was allowed?
- d A student allows himself an average of 55¢ per day for his lunches at school. During a recent week, he spent 45¢ on Monday, 65¢ on Tuesday, 70¢ on Wednesday, and 35¢ on Thursday. How much may he spend for lunch on Friday?
- e A man withdrew \$141 from his savings account. This sum was 3% of the original balance in his account. What was the original balance?

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 316.86; 41.079; 5.72; 112.824
- b Subtract 49.291 from 267.14
- c Multiply 42.06 by 3.45
- d Divide 919.56 by 7.9
- e Add $2\frac{5}{16}$; $7\frac{1}{8}$; $14\frac{3}{4}$; $5\frac{1}{2}$
- f Subtract $9\frac{2}{3}$ from $17\frac{5}{12}$
- g Multiply $44\frac{1}{2}$ by $8\frac{1}{4}$
- h Divide $9\frac{1}{3}$ by $1\frac{3}{4}$
- i Express $\frac{9}{11}$ as a decimal correct to the nearest hundredth.
- j Express 66.5% as a common fraction in lowest terms.

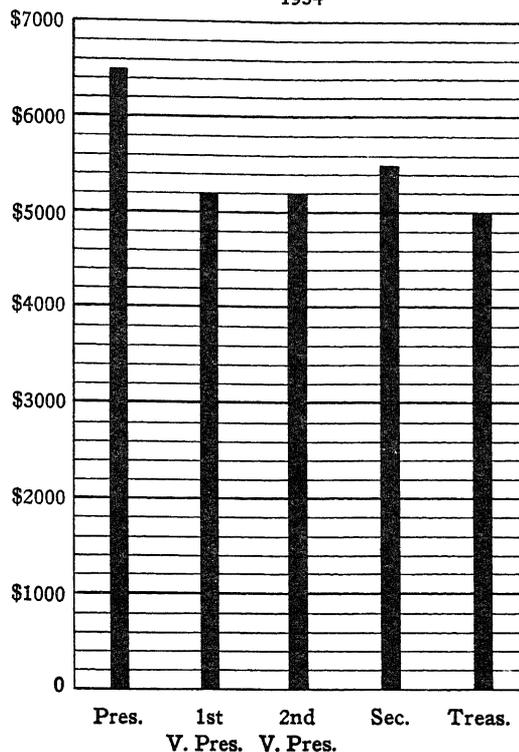
5 Hawkins paid \$20,000 cash for a two-family house, all of which he plans to rent. The estimated annual expenses he must pay are as follows:

Taxes	\$341.25
Insurance	21.75
Repairs, depreciation, etc.	400.00
Water bills	17.00

Hawkins wishes to obtain a net return of 6% on his original investment. What monthly rent must he charge for each of the two apartments? [10]*

6 The five highest-paid officers of the ABC Corporation are paid salaries as shown on the bar graph below. Using the information given, answer the following questions:

SALARIES OF OFFICERS
ABC CORPORATION
1954



- a What amount of money is paid to the officer receiving the highest salary? [1]
- b Which officer receives the lowest salary? [1]
- c Which two officers receive the same salary? [2]
- d What is the average of the salaries paid to all officers? [2]
- e By what per cent does the salary of the president exceed the salary of the first vice president? [4]*

7 Walton recently purchased the goods listed below:

SUPERIOR MANUFACTURING COMPANY
DAVIS CITY, NEW YORK

December 1, 1954

Sold to: Henry Walton
Davis City, New York

Terms: $\frac{2}{10}$, $\frac{n}{30}$

10 table model radios #3463	@ \$40.00 each
25 console model radios #3473	@ 80.00 each
15 portable model radios #312	@ 30.00 each

For what amount of money would Walton write his check in order to pay for the above in full on December 10, 1954? [10]*

BUSINESS ARITHMETIC — *concluded*

Part III

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

8 A dealer bought a radio for \$122 less 10% and 10%. The freight charges amounted to \$3.18. At what price must the dealer sell this radio in order to make a gross profit of 15% of the selling price? [6]*

9 Freeman insured an apartment building, which he owned, for \$3000 with Company X, for \$9000 with Company Y, and for \$12,000 with Company Z. A fire loss of \$9600 occurred. What amount should Freeman collect from each of these insurance companies? [6]*

10 Rogers borrowed \$2400 on his 6% interest-bearing promissory note, dated September 16, 1954. If he paid the note and interest on December 1, 1954, what total amount would he pay? [6]*

11 The total assessed value of all taxable property in a certain town was \$3,428,000. The amount to be raised in taxes was \$111,410. What would be the tax levied on a piece of property assessed at \$6800? [6]*

12 A set of kitchen furniture is offered by one dealer for a down payment of \$16.50, with 12 monthly installments of \$9.25 each. A second dealer offers a similar set of furniture for a down payment of \$8.50, with 52 weekly installments of \$2.25 each. How much will the buyer save by taking the better of the two offers? [6]*

Part IV

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

13 A dealer bought 840 bags of potatoes at \$1.05 per bag and sold them for a total price of \$992.25. What *per cent* of profit on the cost did the dealer realize? [4]*

14 A typewriter costing \$140 when new is worth \$35 five years later. What is the average annual *per cent* of depreciation on this typewriter? [4]*

15 A commission broker was paid \$46.26 commission. This commission was 3% of the money he received from selling eggs at 60¢ per dozen for his employer. How many dozen did he sell? [4]*

16 Last week Johnson worked a total of 40 hours, with an hourly pay rate of \$1.40. If Leland is paid \$1.75 per hour, how many hours must he work in the same week in order to equal Johnson's earnings? [4]*

17 Castle's New York State income tax return for a recent year showed a net taxable income, after all deductions had been made, of \$2865. This income was subject to a 2% tax on the first \$1000 and a 3% tax on the next \$2000 or any fraction thereof. What was the total amount of Castle's New York State income tax for that year? [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.]