BUSINESS ARITHMETIC

Tuesday, August 24, 1937

NAME OF SCHOOL

NAME OF CANDIDATE

Fill above blanks before signal to begin work is given by examiner.

Do not open this sheet till the signal is given.

Examiner will place this sheet closed on desk of each candidate. Candidate will open the sheet and begin work at signal from examiner. All parts of this test are to be worked mentally and the results placed on the sheet. At the end of 15 minutes work must stop and the pages used for this test must then be detached from the rest of the question paper and immediately collected.

All work must be done with pen and ink.

BUSINESS ARITHMETIC RAPID CALCULATION TEST

Tuesday, August 24, 1937 — 8.30 to 11.30 a. m.

1-2 *a* Add [5]

$ 678.36
27.44
3106.25
56.74
8.43
216.34
28.29
4237.73
278.55
5.07
146.28
4.28
156.43
98.11
15.04
89.50
166.21
4.24
$.

b Find the interest on *each* of the following: [4]

$600 for 3 months at 2 % =
$240 for 15 days at 6 % =
$360 for 60 days at 4½% =
$180 for 9 days at 6 % =

[Footing not required]

c Make the extensions: [4]

280 articles @ 15 ¢ =
150 articles @ 3⅓¢ =
150 articles @ 24 ¢ =
175 articles @ $12 per C =

[Footing not required]

d Underline the correct answer for *each* of the following: [7]

The exact number of days from February 17, 1937 to May 12, 1937 is (86; 74; 84; 85) days.

If an article costing $24 is sold at 1⅔ times the cost, the selling price is ($16; $36; $40; $32)

2¼¢ per pound is equivalent to ($90; $22.50; $450; $45) per ton.

2.5% expressed as a common fraction in its lowest terms is ($\frac{1}{40}$; $\frac{1}{4}$; $\frac{1}{8}$; $\frac{1}{25}$)

$\frac{3}{4} + \frac{3}{8} + \frac{3}{16} =$ ($1\frac{1}{4}$; $1\frac{5}{16}$; $1\frac{1}{2}$; $1\frac{3}{8}$)

$3.5 \times .05 =$ (175; 1.75; .175; 17.5)

¼% of $160 = ($.40; $.04; $4; $40)

The University of the State of New York

270TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, August 24, 1937 — 8.30 to 11.30 a. m., only

Write at top of first page of answer paper (*a*) names of schools where you have studied, (*b*) number of weeks and recitations a week in business arithmetic previous to entering summer high school, (*c*) number of recitations in this subject attended in summer high school of 1937.

The minimum time requirement is five recitations a week for a school year. The summer school session in business arithmetic will be considered the equivalent of one semester's work during the regular session or five recitations a week for half a school year.

For those pupils who have met the time requirement the minimum passing mark is 65 credits; for all others 75 credits.

For admission to this examination attendance on at least 30 recitations in this subject in a registered summer high school in 1937 is required.

Answer questions 1–2 and eight of the others. Unless otherwise stated all operations except mental ones are to be shown. Practical business methods must be used in solutions.

1–2 Rapid calculation test on attached sheet. [20]

3 Answer all parts of this question. [10] [Deduct 2 credits for each incorrect answer. Answers only are required in this question.]

a A three-months note, dated May 12, 1937, was discounted 30 days later. What was the length of time for which the bank charged discount?

b A school purchased an electric adding machine for $205, less a school discount of 25%. At the end of 10 years, the company allowed the school $47.75 toward the purchase of a new machine. What was the average annual amount of depreciation?

c A salesman receives a salary of $75 a month and a commission of 4% on all sales. What must be the amount of his sales each month in order that his total monthly income may be $300?

d A dealer bought chocolate bars for 80 cents a box (24 bars) and sold them for 5 cents a bar. What per cent of the selling price was gained?

e Clark had to pay $236.25 taxes on an assessed valuation of $7500. What was the tax rate per $1000?

4 A house is valued at $16,000 and its contents at $4800. The house is insured for 80% of its value at a rate of 45 cents per $100 for three years and the contents for their full value at an annual rate of 32 cents per $100.

a Find the premium paid for the insurance on the house. [4]

b Find the total annual cost of carrying both insurance policies. [6]

5 A newspaper advertisement read as follows: "$33.50 rugs reduced to $26.80." These rugs cost the merchant $23.30.

a What rate of discount was offered? [2]

b During the special sale what was the per cent of profit based on the cost? [4]

c Find, correct to the *nearest tenth per cent*, the rate of profit based on the special sales price. [4]

6 An electric motor that cost $80 is so listed in a catalog that it can be sold at a profit of 40% on the cost after trade discounts of 20% and $16\frac{2}{3}$% are allowed.

a Find the net selling price. [4]

b Find the catalog price. [6]

7 A wholesale dealer directed his agent to purchase 5000 pounds of coffee at 17 cents a pound. The agent paid $16.40 for freight and cartage and $6.60 for storage; he charged 2% commission for buying. For how much a pound must the wholesale dealer sell the coffee to make a profit of 25% on the gross cost? [10]

8 You wish to borrow $200 on a note and pay it back in instalments of $50 each month on the principal. The total interest and other charges made by a bank for this loan will be $4.75. A loan company will charge 3% a month on that part of the loan which does not exceed $100 and 2% a month on that part of the note which exceeds $100.

a Find the total interest cost that would be charged by the loan company. [In your solution show the interest to be paid each month.] [8]

b From which concern would it be better to borrow? How much better? [2]

[OVER]

9 The note shown below was discounted on July 17, 1937.

$1175.00 Syracuse, N. Y., July 10, 1937

Two months after date I promise to pay to the order of ..... Luther C. Tracy.....
Eleven hundred seventy-five.....Dollars.
With interest at 6%

[*Signed*] William F. Barcomb

a What would be the value of the note if Tracy held it until it was due? [2]

b How much did the bank charge for discounting the note? [6]

c How much did Tracy receive when he discounted the note? [2]

10 The total annual rental of a piece of business property is $12,600. The annual expenses are $3360. What amount must you pay for this property in order to have your investment net you 6%? [10]

11 A department store has six departments. The annual rent of $12,000 is to be charged to the departments in proportion to the floor space occupied by each. The distribution of floor space is as follows:

Department	*Square feet of space*
A	1700
B	1500
C	3200
D	1260
E	1300
F	1040

Find the amount of rent apportioned to *each* department. [10]
[This is an accuracy test; no partial credit will be given.]