COMMERCIAL ARITHMETIC
Tuesday, June 19, 1934

NAME OF SCHOOL

NAME OF CANDIDATE

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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.

COMMERCIAL ARITHMETIC RAPID CALCULATION TEST

Tuesday, June 19, 1934 — 9.15 a. m. to 12.15 p. m.

1–2 *a* Complete the following record of packages delivered: [5]

	Route 1	Route 2	Total
Monday	68	109	
Tuesday	56	87	
Wednesday	112	93	
Thursday	107	69	
Friday	124	117	
Saturday	148	136	
Totals			

b Find the interest: [4]

$255 for 80 days at 6 % =

$30.60 for 50 days at 6 % =

$250 for 6 months at 3% =

$160 for 33 days at $4\frac{1}{2}$% =

[Footing not required]

c Make the extensions: [5]

125 articles @   48¢ =

87 articles @   25¢ =

105 articles @ $1.10 =

1500 pounds @ $24 per ton =

1400 articles @ $15 per M =

[Footing not required]

d Place answers in proper columns: [6]

Marked price	Selling price	Cost	Gain	Rate of gain on selling price	Rate of gain on cost	Rate of discount on marked price
$96	$64	$48	$16	....	....	....
$10	$ 9	$ 6	$ 3	....	....	....

The University of the State of New York

260TH HIGH SCHOOL EXAMINATION

COMMERCIAL ARITHMETIC

Tuesday, June 19, 1934 — 9.15 a. m. to 12.15 p. m., only

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 commercial arithmetic.
The minimum time requirement is five recitations a week for a school year.

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 man paid $105 for a typewriter. At the end of 5 years he was allowed $22.50 for it toward the purchase of a new typewriter. What was the average yearly amount of depreciation?

b The price of an adding machine to schools is $175, less 10% and 10%; how much would a school have to pay for one machine?

c A boy has had four monthly tests in commercial arithmetic with the following ratings: 87%, 86%, 95%, 89%. What rating must he receive on the next test in order that he may have an average of 90% for the five tests?

d A. H. Jones gave an agency an account amounting to $800 to collect. The agency collected 60% of the account and charged 10% for collecting. How much did Jones receive?

e A 90-day note is dated March 15, 1934; on what date will it become due?

4 W. L. Ames conducts a retail dry-goods business in a building which he owns. On January 2, 1934, the building was valued at $45,000 and the stock of goods was inventoried at $13,200. On that date he insured the building for 80% of its value at $16.50 a thousand for three years and the stock at inventory value at $15.07 a thousand for one year.

a Find the premium on the building. [4]

b Find the premium on the stock. [4]

c Find the average yearly cost of insurance on the building. [2]

5 On January 2, 1933, Wilson and Smith entered into a partnership for the purpose of conducting an automobile sales and repair business. Wilson invested $10,500 and Smith $7500. It was agreed that each partner should receive 6% on his investment and that the remaining profit or loss should be divided equally between the partners. At the end of the year, income from sales amounted to $10,287.63, income from repairs $1428.12 and expenses $3255.75.

a Find the firm's net profit for the year. [2]

b Find Wilson's total income for the year. [4]

c Find Smith's total income for the year. [4]

6 The assessed valuation of taxable property in a certain village is $12,169,250. The total amount necessary to meet the expenses of the village for the coming year is $159,525.76. The estimated receipts from waterworks and other sources are $22,500.

a Find the tax rate. [Carry the decimal to *five* places.] [6]

b What would be A. N. Watson's tax if his property is valued at $12,000 and is assessed at 85% of its value? [4]

7 On January 2, 1933, C. H. Hall bought a two-story brick block. It took three months for Hall to make the necessary improvements on the building before it could be rented. On April 1, he rented the four apartments on the second floor at a monthly rental of $42.50 each. On July 1, Hall leased the ground floor to a chain-store company for $1800 a year.

a How much rent did Hall receive during 1933? [4]

b Assuming that the entire building continues to be rented at the same rates and that Hall's expenses are taxes $625, insurance $130, heat $750 and repairs $135, find Hall's net income from the block for 1934. [6]

8 On April 3, F. B. Clark purchased goods amounting to $1500, less 20% and 10%, terms $1/10$ $n/30$. Clark wished to pay the bill on April 13 so as to take advantage of the cash discount. As he had only $500 to spare, he borrowed the balance on his 20-day interest-bearing note. Did Clark gain or lose by borrowing the money to take advantage of the discount [2]? How much did he gain or lose [8]?

9 The Star Clothing Shop bought an odd lot of men's clothing, consisting of 150 summer suits, for $2550. After the suits had been marked up 40% on the cost, 100 of them were sold. At what price must each of the remaining suits be sold in order to gain 25% on the cost of the entire lot? [10]

[OVER]

10 F. C. Gates plans to build in the basement of his store a rectangular tank to hold at least 600 gallons. It is possible to have the tank 4 feet wide and 4 feet high. If 1 cubic foot contains approximately 7.5 gallons, what must be the minimum length of the tank in feet? [10]

11 L. A. Ward wishes to establish a trust fund for his son's education. Mr Ward has the opportunity to buy gas and electric bonds ($1000 par value), bearing $4\frac{1}{2}\%$ interest, at $717.50 each, or railroad bonds ($1000 par value), bearing 6% interest, at $1037.50. The brokerage would be $2.50 for each bond.

    a Which bond would be the better investment and what would be the rate of income? [8]

    b How much would Ward have to invest in these bonds to secure an annual income of $900? [2]

12 As briefly as possible, give a definite reason or explanation for *each* of the following practices: [10]

    a The fire-insurance rates for cities and large villages are often lower than for rural districts.

    b Manufacturers generally favor employing their workers on a piece-work basis instead of on a day-rate plan.

    c The selling price instead of the cost price is often used as the basis for determining the rate of profit.

    d On invoices of goods sold, it is often desirable to quote such terms as $^2/_{10}$ $^n/_{30}$.

    e When goods are sold on consignment, the commission is figured before the other charges are deducted.