COMMERCIAL ARITHMETIC

Tuesday, January 20, 1931

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.

COMMERCIAL ARITHMETIC RAPID CALCULATION TEST

Tuesday, January 20, 1931 — 9.15 a. m. to 12.15 p. m.

1–2 *a* Add [4]

15428
6813
242737
906
10752
4675
8244
631052
72983
478
44863
958
61595
8922
1704
8690
787
10841

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

$350 for 66 days at 6 % =

$250 for 48 days at 4½% =

$200 for 27 days at 6 % =

$480 for 45 days at 5 % =

[Footing not required]

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

2.5 multiplied by .05 equals (1.25; .125; .0125; 12.5).

¼% of $200 is ($.50; $5; $50; $.05).

1.5 divided by 30 equals (5; 50; .5; .05).

28 increased by ¼ of itself is (7; 21; 35; 14).

48 is ⅓ larger than (16; 36; 32; 64).

The exact number of days from October 15, 1930, to December 8, 1930, is (54 days; 53 days; 64 days; 55 days).

d Subtract [2]

11 yd 1 ft 2 in.
3 yd 2 ft 6 in.

e Make the extensions: [4]

189 articles @ $.03⅓ =

1200 pounds @ $30 per short ton =

1750 pounds @ $12 per M =

75 articles @ $.44 =

[Footing not required]

The University of the State of New York

250TH HIGH SCHOOL EXAMINATION

COMMERCIAL ARITHMETIC

Tuesday, January 20, 1931 — 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 Copy the letters *a* to *j* and after each write the letter *T* if the corresponding statement is *true* or the letter *N* if it is *not true*. [10]

a The amount paid by the insurance company in case of loss is called the premium.

b The percentage divided by the base equals the rate.

c The rate of income on stock is obtained by dividing the market price by the cost price.

d The gross cost of merchandise includes such items as rent, taxes and depreciation.

e The discount series 25% and 20% is equivalent to a single discount of 40%.

f Trade discount is a deduction from the list or catalog price of an article.

g In marking goods, letters instead of figures are often used to indicate the cost so that customers may not learn the amount of profit.

h Wages of employees are figured only on an hourly or a weekly basis.

i The area of a circle is obtained by multiplying the square of the radius by 3.1416.

j The rate of profit may be figured on either the cost price or the selling price as the base.

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

a A bicycle that was marked \$36 was sold for \$32.40; what rate of discount was allowed?

b A clothier bought caps at \$18 a dozen and sold them at \$2.25 each. What was the per cent of gross profit based on the selling price?

c A piece of property is assessed at \$7000; find the amount of tax if the rate is \$2.55 per \$100.

d An article costs \$16.50; at what price must it be sold to gain 25% of the selling price?

e A three-months note dated November 8, 1930 is discounted on December 12, 1930; what is the number of days for which discount is charged?

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

a A man bought a house for \$5600. He paid \$2000 down and the remainder of the purchase price at the rate of \$50 a month. How many years will it take him to pay for the house?

b The base of a triangle is 30 feet and the altitude is 15 feet; what is the area?

c A grocer buys peaches at \$1.62 a dozen cans. If he sells them at the rate of 2 cans for 35¢, what is his profit per can?

d Five workmen in a factory received the following amounts per day: \$4.50, \$5.00, \$5.50, \$5.75, \$6.25. What is the average daily wage?

e A house was insured for \$6000 at a premium of 50 cents per \$100 for three years; what is the annual insurance cost?

6 W. S. Willis received from the bank his monthly statement together with canceled checks. According to the statement, the bank balance was \$1289.43. His check-book balance on that date was \$1226.28. On examining the statement, Willis found checks outstanding for the following amounts: \$125.50, \$57.52, \$168.30. A sight draft for \$288.17 had been charged to his account but no record had been made in the check book.

a Find the correct check-book balance. [4]

b Reconcile the statement. [6]

[OVER]

7 A. B. Henry owned 100 shares of Consolidated Electric stock. He authorized his broker to sell the stock at 125½ and buy Denver $1000 bonds at 103. The brokerage for selling the stock was $25 and for buying the bonds $2 for each bond.

a What were the proceeds from the sale of the stock? [5]

b How many bonds were purchased? [2]

c How much money was left to Henry's credit? [3]

8 The readings of the gas and electric meters at the residence of W. H. Alling are as follows:

Date	*Gas*	*Electricity*
Nov. 15, 1930	61,790 cubic feet	3,154 kilowatt hours
Dec. 15, 1930	65,580 cubic feet	3,182 kilowatt hours

The rate for gas is $1.00 per M cubic feet if paid by the first of the following month, and $1.10 per M cubic feet if paid thereafter. The rate for electricity is $1.25 a month minimum charge for the first 25 kw. hr. used, and 4 cents for each additional kw. hr. Alling paid the gas and electric bill on January 10.

a Find the amount paid for gas. [5]

b Find the amount paid for electricity. [5]

9 A farmer sent to New York to be sold on commission two carloads of potatoes weighing respectively 34,600 pounds and 36,800 pounds. Freight charges paid by the commission merchant amounted to $157.08. Before the potatoes could be sold, it was necessary for the commission merchant to put them into sacks, each containing 100 pounds. The cost of sacking was $70.20. The potatoes were sold for $2.50 per sack. After deducting 5% commission for selling, what amount should be remitted to the farmer? [10]

10 On December 8, William Morton purchased an invoice of merchandise amounting to $1282.60, subject to a discount of 2% if paid in 10 days. Morton's bank balance on December 18 was $432.50. He held A. W. Smith's 90-day non-interest-bearing note for $1050, dated November 12. In order that he might have sufficient money with which to pay the invoice on December 18, Morton discounted Smith's note at the bank on that date and received credit for the proceeds. Morton then paid the invoice by check.

a What was the amount of the proceeds credited to Morton's account at the bank? [6]

b What was the amount of the check? [2]

c What was Morton's final bank balance? [2]

11 A. L. Black bought a house for $6400 and gave in payment $3400 in cash and a mortgage for $3000, on which he has to pay 5½% interest. The annual expenses for taxes, insurance and repairs amount to $210. Black receives $55 a month rent for the house. On the $3400 invested Black could have obtained 6% income from good securities. How much did he gain annually by investing his money in the house? [10]

12 Long, Rice and Martin were partners in a milk-distributing business. Long invested $18,250; Rice, $22,600; Martin, $16,300. Their agreement provided that each partner should be paid from the net profits at the rate of 6% per annum on his investment; after this deduction, any profits remaining are to be divided equally. The net profit for 1930 amounted to $14,476.80. Find the amount of each partner's total income from the business. [10]