COMMERCIAL ARITHMETIC

Tuesday, June 16, 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, June 16, 1931 — 9.15 a. m. to 12.15 p. m.

1–2 *a* Adding vertically and horizontally, fill the blanks in the following chart: [5]

	SALES			
	Dept. A	Dept. B	Dept. C	Total
Monday	71	18	32	
Tuesday	68	21	27	
Wednesday	56	23	25	
Thursday	66	33	23	
Friday	37	26	17	
Saturday	72	34	28	

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

$288 for 45 days at 6% =

$900 for 36 days at 5% =

$240 for 15 days at 4% =

$180 for 39 days at 6% =

[Footing not required]

c Make the extensions: [4]

125 articles @ 12¢ =

1250 pounds @ $24 per M =

156 articles @ 66⅔¢ =

178 articles @ 12½¢ =

[Footing not required]

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

.0625 expressed in per cent is (625%; 62½%; 6¼%).

⅞ of 1% expressed as a decimal is (.00875; 875; 8.75; .0875).

64 decreased by ¼ of itself is (16; 80; 48).

40 increased by 20% of itself is (42; 48; 45).

A tax rate of 21½ mills on $1 is equivalent to ($21.50; $2.15; $215) on $1000.

2.4 divided by 20 equals (.12; 1.2; 12; .012).

$30 per ton is equivalent to ($1.50; 15¢; 1½¢) per pound.

The University of the State of New York

251st High School Examination

COMMERCIAL ARITHMETIC

Tuesday, June 16, 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 In making invoice extensions, each extension is adjusted to the nearest cent.

b In settling a claim for loss by fire, the insurance company always pays the full amount of the loss.

c Dollars and days may be interchanged in computing interest.

d In dividing a number by 1000, the result may be obtained by moving the decimal point three places to the left.

e An account sales is a list of goods purchased.

f Freight paid on goods purchased increases the cost of the goods.

g In a partnership, the profits and losses are always divided equally.

h In figuring depreciation, only the cost of the property and its estimated life are considered.

i Freight charges are based on the weight of the article and the distance it is shipped.

j A commission merchant acts as an agent in buying or selling goods for another.

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

a Find the total freight charges from Buffalo to New York on two carloads of wheat, weighing 48,600 pounds and 52,800 pounds, if the freight rate is 32¢ per 100 pounds.

b A grocer mixed equal quantities of coffee costing 18¢, 20¢ and 22¢ a pound and sold the mixture at 25¢ a pound; what per cent did he gain on the cost?

c Pencils that cost $4.80 a gross are sold at 5¢ each; find the gain per cent on the cost.

d A case of canned corn (2 dozen cans) sells for $2.65. How much is saved by buying a case instead of buying the corn by the can at 15¢ each?

e Office equipment cost $1250. At the end of 5 years it was inventoried at $450. What was the average annual depreciation?

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

a A note for 90 days dated March 2, 1931, is discounted on April 7, 1931; find the length of time for which discount is charged.

b What is the single discount that is equivalent to the series 25%, 20% and 10%?

c A house and lot worth $10,000 is assessed at 80% of its value. If the tax rate is $26.122 per $1000, what is the amount of the tax?

d A furniture dealer marked a table $48; during an inventory sale it was sold for $32. What rate of discount was allowed from the marked price?

e A carload of coal weighing 90,000 pounds is retailed at $8.50 a ton; how much is received for it?

6 A man pays $75 a month rent for a house that he can buy for $8400. How much would he save in a year by buying the house if the taxes amount to $220 a year, the insurance is $10 a year and money is worth 6%? [10]

[over]

7 A wholesaler engaged W. E. Clark as a salesman, agreeing to pay him $140 a month and a 5% commission on all sales over $34,000 for the year. During 1930 Clark's sales amounted to $56,560.

a How much commission was Clark entitled to receive? [4]

b What was Clark's total income for the year? [4]

c What was Clark's average monthly income? [2]

8 An agent bought washing machines that were listed at $70 less 20%. Freight from the factory averaged $4 a machine.

a At what price must the agent sell the machines in order to make a profit of 40% on the actual cost? [8]

b How much would he receive if he allowed a 2% discount for cash? [2]

9 A dealer bought men's suits for $40 less 35%. When the selling price was $38.50, the sales averaged 14 suits a day. When the selling price was reduced to $36.50, the sales increased so that they averaged 20 suits a day.

a Was the amount of the daily profit increased or decreased by reducing the sales price? [2]

b What was the amount of increase or decrease? [5]

c What was the per cent of increase or decrease? [3]

10 A contractor is planning to build a wall 1 foot thick and 4 feet high along one side and one end of a court 30 feet wide and 60 feet long (inside measurement).

a How many cubic feet of masonry will there be in the wall? [5]

b If 22 bricks are required for each cubic foot, what will be the cost of the brick for this wall at $35 per M? [5]

11 Charles Foster expects to live in Rochester, N. Y., for $3\frac{1}{2}$ years. He can rent a furnished apartment for $1500 a year or he can rent an unfurnished apartment for $70 a month and buy furniture for $2000, which he estimates can be sold for $450 when he leaves. Which is the better proposition [2]? How much would Foster save [8]?

12 R. B. Jones purchased an automobile, the cash price of which was $1015 delivered. Not having enough money in his checking account to pay cash, Jones bought the automobile on the deferred-payment plan. Under this plan the cost of the car was $1090. Jones gave a check for $500 when the car was delivered and paid the balance in 12 monthly instalments. When Jones purchased the car, he had a savings account that was paying 4% annual interest and a new interest period was just beginning; how much would he have saved if he had withdrawn the additional money from the savings bank and purchased the automobile for cash? [10]