COMMERCIAL ARITHMETIC

Tuesday, August 22, 1933

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, August 22, 1933 — 8.30 to 11.30 a. m.

1–2 *a* Add [4]

2681
6873
5296
4386
7471
4365
2168
3693
2872
4156
2392
1683
1786
4693

b Solve [4]

$62 + .7 =$

$24 - .25 =$

$4.03 \times .8 =$

$1.26 \div .09 =$

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

\$ 30 for 19 days at 6 % =

\$120 for 20 days at $4\frac{1}{2}$% =

\$400 for 90 days at 3 % =

\$266 for 36 days at 6 % =

[Footing not required]

d Make the extensions: [4]

48 pounds @ \$.87$\frac{1}{2}$ per pound =

2220 pounds @ \$14 per ton =

320 pounds @ \$.06$\frac{1}{4}$ per pound =

70 pounds @ \$2.50 per pound =

[Footing not required]

e Place answers in proper columns: [4]

Selling Price	*Cost*	*Gain*	*Rate of gain on selling price*	*Rate of gain on cost*
\$36	\$30	\$6	.....	.....
\$48	\$36	\$12	.....	.....

The University of the State of New York

258TH HIGH SCHOOL EXAMINATION

COMMERCIAL ARITHMETIC

Tuesday, August 22, 1933 — 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 commercial arithmetic previous to entering summer high school, (*c*) number of recitations in this subject attended in summer high school of 1933.

The minimum time requirement previous to entering summer high school is five recitations a week for a school year.

For those pupils who have met the time requirement previous to entering summer high school 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 1933 is required.

Answer questions 1–2 and eight of the others. Unless otherwise stated all operations except mental ones must be shown. Practical business methods must be used in the 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 number 3 times as large as 4 is $\frac{1}{2}$ as large as what number?

b Find the difference between $\frac{1}{2}$ of 1% and $\frac{1}{2}$.

c Edward and John had bank accounts. Edward's account exceeded John's by 20%. Edward had $240 in the bank. How much had John?

d A salesman sold $400 worth of goods on Monday and $500 worth on Tuesday. What was the per cent of increase in sales?

e A young man wished to purchase a car selling for $510. He joined a $5-a-week Christmas Club (50 weeks in duration). The bank agreed to pay him $5 interest each year if his payments were made on time. For how many years must he be a member of the club in order to obtain sufficient money to pay cash for the car?

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 cost of 49^{3} yards and 46^{1} yards at $\$.87\frac{1}{2}$ per yard.

b Johnson and Adams insured their houses for equal amounts. Johnson paid $55 for three years. Adams paid $22 annually for three years. How much would Adams have saved if he had taken advantage of the three-year rate?

c The tax rate in a certain village is .00963. Express this as rate per thousand dollars.

d A note for $500 which will be due September 5, 1933, is discounted today. For how many days does the bank lend the money?

e A plot of ground is 60′ x 120′. Using a scale of $\frac{1}{4}'' = 15'$, state the dimensions of a diagram that will illustrate the plot.

5 A note for $2000, dated April 1, 1932, with interest at 6%, was paid on April 1, 1933. What amount was due on the day of settlement if $800 was paid on August 16, 1932, and $1000 on February 15, 1933? [10]

6 A jobber buys goods listed at $1500 with the option of 40% discount for cash or of successive discounts of 20%, 10% and 10% and 90 days credit. How much would he gain if he borrowed the money at 6% for 90 days in order to take advantage of the cash discount? [10]

7 At a charge of 5¢ a barrel for the first 10 days and 2¢ for each succeeding 10 days or fraction thereof, find the amount due for storage on the following account: [10]

Stored		*Withdrew*	
March 2, 1933	100 barrels	March 20	125 barrels
March 16, 1933	50 barrels	May 18	150 barrels
May 9, 1933	125 barrels		

8 A merchant having 1368 yards of cloth sold $33\frac{1}{3}$% of it at $1.50 a yard, 25% of the remainder at $1.65 a yard and what was left at $1.49 a yard. How much did he receive for all? [10]

9 From a tank containing 125 gallons of oil, 5 gallons and 3 quarts were lost by leakage.

a What per cent of the oil was lost? [8]

b If the oil was worth 30¢ a quart, what was the value of the oil that was lost? [2]

[OVER]

10 On August 1, the reading of a gas meter was 86,400 cubic feet. On July 1, the reading was 71,300 cubic feet.

a What is the amount of the gas bill at $1.20 per thousand cubic feet? [3]

b If the bill is paid on or before August 10, a 6% reduction is allowed. Find the amount paid on August 10. [2]

c How many cubic feet of gas did a family consume whose bill was $10.20, if the rate was $1.20 per thousand cubic feet? [5]

11 Show in detail the solution of *each* of the following:

a A dealer sold a coat for $23.75 at a loss of 5% on the cost; find the cost of the coat. [$2\frac{1}{2}$]

b A dealer sold a davenport for $200 at a profit of 25% on the cost; find the cost of the davenport. [$2\frac{1}{2}$]

c A dealer sold an electric range for $225 at a gain of $33\frac{1}{3}$% on the selling price; find the cost of the range. [$2\frac{1}{2}$]

d A dealer sold an electric refrigerator for $99, which was 10% below the original selling price; find the original selling price. [$2\frac{1}{2}$]

12 James Madison's check-book stub showed a balance of $1421.82. The bank statement showed a balance of $1728.55. The statement showed a credit of $8.34 for interest earned on the deposits and a deposit of $140 which did not appear on stub of check book. The outstanding checks were for $64.19 and $94.20.

a Reconcile the statement. [8]

b What is the correct check-book balance? [2]