

The University of the State of New York

294TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, June 19, 1945 — 9.15 a. m. to 12.15 p. m., only

Fill in the following lines:

Name of pupil.....Name of school.....

Instructions

Do not open this sheet until the signal is given.

All parts of the rapid calculation test are to be worked mentally and the results placed on the question paper. At the end of 15 minutes, work must stop and the sheet used for this part of the examination must then be detached from the rest of the question paper and immediately handed to the examiner.

All work must be done with pen and ink.

This is a mental test — scrap paper may not be used.

RAPID CALCULATION TEST

1-2 a Complete the following sales record: [5]

Department	Cash Sales	Charge Sales	Total Sales
Furniture	\$156	\$ 94	\$
Paints	247	123	
Appliances	96	252	
Accessories	134	196	
Tools	178	69	
Repair	243	107	
Total			

b Complete *each* of the following: [5]

75 is $\frac{3}{5}$ of _____.

28 mills may be expressed as \$_____.

$\frac{1}{4}\%$ of \$500 is \$_____.

A used radio costing \$28 was sold for \$70. The rate of gain on the cost was _____%.

At 25¢ a yard we can buy _____ yards for \$16.

c Make the extensions: [5]

120 gallons at 15¢ =

150 lb. at \$2.50 a cwt =

140 bushels at \$1.25 =

75 yards at 56¢ =

1500 lb. at \$18 a ton =

d Compute the interest on *each* of the following: [5]

\$350 for 6 mo. at 6% =

\$124 for 30 days at 3% =

\$600 for 39 days at 2% =

\$480 for 15 days at 4% =

\$240 for 90 days at 5% =

BUSINESS ARITHMETIC

Tuesday, June 19, 1945

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 business 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] [Two credits for each correct answer; no partial credit. Answers only are required in this question.]

- a At the end of a 6-month period, a boy received 75¢ interest on his savings account of \$150. What was the annual interest rate?
- b The pupil registration in the Lakeville school decreased from 675 pupils in 1943 to 621 in 1944. What was the rate of decrease in the registration?
- c Jones, a bankrupt, has assets of \$1982.25 with liabilities of \$13,215. How much will a creditor receive if his claim amounts to \$365?
- d A collection agency that charges 10% commission collected 75% of a \$360 debt. Find the amount of commission charged by the agency.
- e Fisher paid \$104.40 taxes on his house assessed at \$4500. What was the tax rate per \$1000?

4 It costs a manufacturer \$17 to make a rug. At what price should he list the rug in his catalog to make a profit of 15% of the selling price after allowing a trade discount of $33\frac{1}{3}\%$ on the catalog price? [10]

5 Conroy's place of business valued at \$7500 was insured for \$5000 under a policy containing an 80% coinsurance clause. The 1-year rate was 14¢ per \$100.

- a Find the premium for one year. [2]
- b If the 3-year rate is $2\frac{1}{2}$ times the annual rate, what would be the average annual premium for a 3-year policy? [4]
- c In the event of a \$4200 loss, how much would the insurance company pay? [4]

6 Our Treasury Department levies a 20% admissions tax on all tickets sold. For example, a \$1 admission ticket sells for \$1.20, a \$1.50 ticket for \$1.80, and a \$2 ticket for \$2.40. During April a theater sold tickets as follows:

9680 tickets at \$2.40
6495 tickets at \$1.80
5985 tickets at \$1.20

- a What were the total receipts from the sale of tickets? [6]
- b What was the total amount of the tax sent to the Treasury Department? [4]

7 Connor purchased 200 shares of preferred stock at $32\frac{1}{2}$ plus a brokerage fee of \$20.63 for each hundred shares. After he had received a dividend of \$1.50 per share, he sold the stock at $35\frac{3}{4}$. Expenses incurred in the selling of the stock were brokerage fees of \$21.44 for each hundred shares and Federal and state taxes of 10¢ a share. What was Connor's total gain? [10]

BUSINESS ARITHMETIC — *concluded*

8 Todd invested \$12,000 and Olsen \$15,000 in the clothing store of Todd and Olsen. They agreed that in apportioning profits they would allow a return of 8% interest on their investments and share the remaining profits equally.

- a How much must the business earn in one year to cover the 8% interest on the total investment? [2]
- b The partnership profit at the end of the first year was \$5380. Find each partner's total share. [8]

9 Benton, a sugar broker, purchased 35,000 pounds of sugar for a candy manufacturer at 5.5¢ a pound. The broker's expenses and charges were: handling \$23.40, freight 36¢ per cwt, commission 5%.

- a What was the total cost of the sugar to the candy manufacturer? [8]
- b What was the cost per pound to the candy manufacturer? [Express answer to the *nearest tenth* of a cent.] [2]

10 On January 2, 1943, Clark deposited \$6500 in a savings bank. The bank paid interest at the rate of 2% annually. Six months interest was added to the depositor's account on June 30 and December 31. On January 3, 1944, Clark withdrew the deposit of \$6500 and purchased a house that gave him an income from rent of \$55 a month during the entire year. The house expenses in 1944 were: taxes \$145, insurance \$12, repairs \$95, depreciation at 3% of cost. How much greater was Clark's net income in 1944 than in 1943? [10]

11 The cash price of an automobile is \$1260. The deferred-payment plan requires a down payment of \$420 and 12 monthly payments of \$75.60 each.

- a What per cent of the unpaid balance on the car is added for carrying charges and interest? [4]
- b Wheeler has sufficient cash for the down payment and can borrow the balance at 5% for one year. How much cheaper is this plan than the deferred-payment plan? [6]

12 On June 1, Grayson's bank statement showed a balance of \$832.80. On that date his checkbook balance was \$570.32. On comparing the canceled checks and the bank statement with the checkbook balance, he found a check for \$12.15 had not been entered on the checkbook stub, a deposit of \$115.60 had not been entered on the checkbook stub, a check for \$33.60 had been entered on the stub as \$23.60, and the following checks were outstanding: \$18.75, \$46.78, \$31.15, \$72.35.

- a Reconcile the balances. [8]
- b Indicate clearly on your reconciliation statement the amount that represents the correct checkbook balance. [2]