The University of the State of New York

298TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC ·

Wednesday, August 21, 1946 — 8.30 to 11.30 a. 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 answers only 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.

<u>All answers must be written with pen and ink.</u>

<u>This is a mental test — scrap paper may not be used.</u>

RAPID CALCULATION TEST

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

	Andrews	Edwards	Total
January	$ 923	$ 812	$
February	716	611	
March	385	420	
April	591	917	
May	186	287	
June	205	310	
Total	$	$	$

b Make the extensions: [5]

104 yd @ 25 ¢ = $

75 doz. @ 60 ¢ = $

250 lb. @ $96 per ton = $

64 bu. @ 87½¢ = $

315 ft @ 3⅓¢ = $

c Compute the interest: [5]

$ 500 for 3 mo. at 6 % = $

$ 720 for 10 days at 5 % = $

$ 960 for 45 days at 3 % = $

$1200 for 50 days at 2 % = $

$ 750 for 40 days at 1½% = $

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

7½¢ per pound is equivalent to $_____ per cwt.

An article that cost $30 was sold for $40. The rate of gain on the selling price was _____%.

Write as a decimal: twenty-three thousandths

At 33⅓¢ a yard one can buy _____ yards for $15.

$.015 may also be expressed as _____ mills.

BUSINESS ARITHMETIC

Wednesday, August 21, 1946 — 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 business arithmetic previous to entering summer high school, (*c*) number of recitations in this subject attended in summer high school of 1946 or number and length in minutes of lessons taken in the summer of 1946 under a tutor licensed in the subject and supervised by the principal of the school you last attended.

The minimum time requirement is four or five recitations a week for a school year. The summer school session in business arithmetic will be considered the equivalent of one semester's work during the regular session (four or five recitations a week for half a school year).

For those pupils who have met the time requirement 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 1946 or an equivalent program of tutoring approved in advance by the Department is required.

Answer questions 1–2 and eight of the others. Unless otherwise stated all operations except mental ones are to be shown written in ink. 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 A man figures that if he purchases a piece of property it will yield him an annual net profit of $440. How much can he afford to pay for it if he plans to earn 4% on his investment?

  b A dealer purchased garments at $60 per dozen, less 20% and 10%. What was the net purchase price per garment?

  c A bus travels 5 miles in 10 minutes. At this rate what is its speed per hour?

  d An article that formerly sold for $80 now sells for $90. What is the per cent of increase?

  e A shopworn item was sold for $3.60. This resulted in a loss of 10% of the cost. What was the cost of the item?

4 On August 5 a merchant discounted a customer's 2-month, 4% interest-bearing note for $600. The note was dated July 26 and the discount rate was 5%.

  a When is the note due? [1]

  b What is its maturity value? [2]

  c What is the term of discount? [2]

  d What is the bank discount? [3]

  e Find the net proceeds of the note. [2]

5 Gray invested $20,000 and White $30,000 in a partnership.

  a How much must the firm earn in a year in order to be able to pay each partner 7% interest on his investment? [1]

  b If the net profit for one year was $6000, how much would *each* partner receive if they agreed to divide the net profit in proportion to their investments without regard to interest? [3]

  c If the net profit for one year was $5000 and each partner was to be allowed 6% interest on his investment, with the remainder of the net profit to be divided equally, find *each* partner's total income from the business for the year. [6]

[3] [OVER]

6 A company's bank statement for June listed the following information: balance June 1: $5285.10; deposits made during June: $503.91, $486.17, $610.23; checks paid during June: $17.67, $105.06, $261.59, $60, $189.68.

The checkbook balance was $6230.81. Three checks for $23.10, $7.50 and $50 were outstanding. A check for $60 paid by the bank had not been entered in the checkbook.

    a What amount would be shown on the bank statement as the balance on June 30? [4]

    b Prepare a bank reconciliation statement on which you indicate the correct checkbook balance. [6]

7 A 3% bond, $1000 face or par value, can be purchased for a total cost of $1200.

    a What is the rate of return on the bond? [4]

    b If a total of $36,000 is invested in these bonds, what will be the total income from them for one year? [6]

8 The cashier in a cafeteria separated her lunch checks for a certain period in the day and discovered that she had the following:

8 for 12¢	13 for 18¢	32 for 23¢	41 for 30¢	99 for 40¢	181 for 50¢
10 for 15¢	20 for 20¢	35 for 25¢	72 for 35¢	135 for 45¢	120 for 60¢

    a How many lunch checks did the cashier handle? [1]

    b What were the total sales? [4]

    c Find, to the *nearest tenth of a cent,* the average amount paid per lunch check. [5]

9 The taxable property in a certain school district is assessed for $5,250,000. The total expenses for the school year amount to $169,500. State aid to support the schools in this district will total $79,500.

    a What should be the tax rate per $1 to yield an amount sufficient to meet the net expenses of the school district? [Carry the decimal to five places.] [6]

    b In a neighboring school district the tax rate per $1 was $.01754. What is the amount of the school tax on a piece of property valued at $12,000 and assessed for 80% of its value? [4]

10 The Ames Company offered a salesman a commission of 4% on the first $3000 of sales and 5% on all sales in excess of $3000. The Brown Company offered him a monthly salary of $150 and 1½% commission on all sales. His average sales amount to $4600 a month. Calculate the amount this salesman would make per month

    a If he worked for the Ames Company [5]

    b If he worked for the Brown Company [5]

11 The owner of a building valued at $12,500 insures it for $9000 under a fire insurance policy containing an 80% coinsurance clause. The 1-year rate is 16¢ per $100.

    a Find the premium for one year. [2]

    b If the 3-year rate is 2½ times the annual rate, how much would be saved by purchasing one 3-year policy instead of purchasing a 1-year policy for each of three years? [4]

    c In the event of a $5000 fire loss, how much of the loss, if any, would have to be borne by the owner of the building? [4]

12 Answer *all* parts of this question. [10] [Two credits for each correct answer; no partial credit; *no credit allowed unless work is shown.* Reduce each answer to its simplest form.]

    a $8\frac{3}{4}$ minus $6\frac{7}{8}$ =

    b Subtract 8347 from 9134

    c Divide .10776 by .008

    d Using the four-step process, multiply $12\frac{3}{4}$ by $8\frac{2}{3}$

    e Divide $\frac{3}{4}$ by $\frac{5}{8}$

[4]