# BUSINESS ARITHMETIC Tuesday, June 16, 1936

## 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.

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# **BUSINESS ARITHMETIC RAPID CALCULATION TEST**

Tuesday, June 16, 1936 --- 9.15 a.m. to 12.15 p.m.

1-2 a Make the extensions: [5]

35 yd @ \$1.20 =80 yd @  $7\frac{1}{2}\phi =$ 26 yd @  $15\phi =$ 125 doz. @  $48\phi =$ 1500 fb @ \$8.50 per M =

[Footing not required]

b Compute the interest on each of the following: [5]
\$135 for 20 days at 6 % =
\$250 for 6 months at 3 % =
\$400 for 27 days at 6 % =
\$600 for 15 days at 5 % =
\$320 for 30 days at 4½% =
[Footing not required]

c Complete each of the following: [5]

\$25 per ton is equivalent to ..... per pound.

A dress that cost \$10 was sold for \$15; the rate of gain on the selling price was . 48 increased by  $12\frac{1}{2}\%$  of itself is .....

The exact number of days from March 20, 1936 to June 12, 1936 is ...... A tax rate of \$25 per \$1000 is equivalent to \$..... per \$1.

d Complete the following record of advertising replies: [5]

	Newspapers	Magazines	Total
1st week	126	79	
2nd week	203	88	
3rd week	194	91	
4th week	141	127	
5th week	135	156	
6th week	96	188 <sup>.</sup>	-
Totals			

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### The University of the State of New York

#### 266TH HIGH SCHOOL EXAMINATION

## **BUSINESS ARITHMETIC**

Tuesday, June 16, 1936 – 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 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] [Deduct 2 credits for each incorrect answer. Answers only are required in this question.]

- a A chair that cost \$4.50 has been selling for \$6.30. If the same type of chair costs \$5.25 today, at what price should it be sold to make the same rate of profit on its cost?
- b Acme 5% bonds with a par value of \$100 may be purchased at 120. How much money must be invested to yield an annual income of \$500?
- c Rogers and Company has been selling automobile heaters at \$15. To meet competition, it is necessary to sell these heaters at \$12.75. What rate of discount must Rogers and Company offer?
- d A man bought an automobile for \$615 and used it for  $6\frac{1}{2}$  years. He then was allowed \$95 for it toward the purchase of a new car. What was the yearly amount of depreciation?
- e The price of coal is \$12.50 a ton, and customers are given 50¢ off the price of each ton if cash payment is made. What per cent would Jones save by paying cash?

4 On June 12, 1936, Henry Austin found that he had overdrawn his bank account by \$154.20. On that date he discounted at 6% a three-months interest-bearing note for \$280, dated May 26, 1936.

*a* Find the proceeds of the note. [8]

credited to his account?

b What was Austin's bank balance after the proceeds were

#### BUSINESS ARITHMETIC — continued

5 A dealer buys fountain pens at \$36 a dozen, less 25% and 20%. The overhead of the store amounts to 25% of its sales. At what price must the dealer sell each pen in order to gain 15% on the selling price? [10]

6 A. B. Henry, a druggist, owns a stock of goods inventoried at \$4525 and the building valued at \$15,000. He insures the stock for the inventoried value at \$12.50 a thousand for one year and the building for 80% of its value at \$17.10 a thousand for three years.

*a* Find the premium on the stock. [4]

*b* Find the premium on the building. [4]

c Find the total yearly cost of insurance. [2]

7 Rowley offers his house for sale to Brown. Rowley shows that he has been receiving \$45 a month rent and that his yearly expenses have amounted to \$104 for taxes, \$12 for insurance and \$80 for repairs. Assuming that the rent and expenses will remain the same, state how much Brown can pay for the house so that he may earn 8% on his investment. [10]

8 The total amount necessary to meet the expenses of a certain school district for the coming year is \$19,743.40. It is estimated that the district will receive \$450 tuition from outside students and \$3500 state aid. The assessed valuation of taxable property in the district is \$1,945,000.

*a* Find the tax rate per \$1000. [6]

b What would be A. F. Cole's tax if his property is valued at \$10,500 and is assessed at 80% of its value? [4]

9 The Genesee Woolens Company pays S. W. Wall, a salesman, a salary of \$125 a month. In addition, Wall earns 2% commission on his sales up to and including \$2000 a month and 3% commission on any amount in excess of \$2000. In April, Wall's sales amounted to \$1580 and in May to \$2830. What is the total amount of Wall's earnings for the two months? [10]

10 R. G. Rice of New York bought for cash the following consignment of cheese for the Local Stores Company, Buffalo: 120 boxes, averaging 60 pounds to the box, at  $15\frac{1}{2}\phi$  a pound and 100 boxes, averaging 60 pounds to the box, at  $18\phi$  a pound. Rice paid the cartage amounting to \$12.50 and also prepaid the freight amounting to \$39.78.

- a How much money did Rice advance on the entire transaction? [7]
- *b* If Rice charged 3% commission on the purchase, how much did the cheese cost the Local Stores Company? [3]

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[OVER]

- 11 a The Alden Store advertises gas ranges at a cash price of \$65. Customers may buy on the monthly-payment plan of \$5.50 down and 12 monthly payments of \$5.50 each. By what per cent does the instalment price exceed the cash price? [5]
  - b H. W. Henry bought an automobile for \$808. He paid \$300 cash. The balance was handled through a finance company to which Henry was to make equal monthly payments for 18 months. The company's carrying charges for the transaction amounted to \$45.86. What amount did Henry pay each month? [5]

12 As briefly as possible, give a definite reason or explanation for *each* of the following practices: [10]

- a Factory workers are often paid on a piece-work basis instead of on a day-rate basis.
- b It is sometimes desirable to sell goods subject to terms, such as  ${}^{2}/{}_{10}$   ${}^{n}/{}_{30}$ .
- c It may be necessary to change from time to time the trade discount on an article.
- d The rate of depreciation on a typewriter is higher than that on a desk.
- *e* The checkbook balance on a certain day may not be the same as the bank balance.

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