BUSINESS ARITHMETIC

Tuesday, January 21, 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.

BUSINESS ARITHMETIC RAPID CALCULATION TEST

Tuesday, January 21, 1936 — 9.15 a. m. to 12.15 p. m.

1–2 *a* Underline the correct answer for *each* of the following: [4]

75 divided by 2.5 equals (3; 300; 30; .3)

$\frac{3}{4}$ of 1%, expressed as a decimal, is (.075; .0075; .75; 7.5)

$30 per ton is equivalent to (3¢; 15¢; 30¢; $1\frac{1}{2}$¢) per pound.

20 is 25% of (50; 5; 8; 80)

b Place answers in proper columns: [4]

Selling price	*Cost*	*Gain*	*Rate of gain on selling price*	*Rate of gain on cost*
$75	$60	$15	.....	.....
$48	$32	$16	.....	.....

c Add [4]

2136
7508
4680
1296
751
5503
8989
4465
1344
793
4506
70
1822
2378
5617
3740

d Make the extensions: [4]

72 doz. @ $37\frac{1}{2}$¢ =

30 bu. @ $1.25 =

250 lb @ 12¢ =

150 lb @ $3\frac{1}{3}$¢ =

[Footing not required]

e Compute the interest on *each* of the following: [4]

$186 for 40 days at 6% =

$220 for 4 months at 3% =

$300 for 33 days at 6% =

$175 for 6 months at 2% =

[Footing not required]

The University of the State of New York

265TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, January 21, 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 An automobile that cost $643 six years ago is now worth only $85. What is the average yearly amount of depreciation?

b The May reading of a gas meter was 71,400 cubic feet while the April reading was 67,800 cubic feet. At 95¢ per thousand cubic feet, find the amount of the gas bill.

c A three-months note, dated September 12, 1935, was discounted on October 24, 1935; find the length of time for which discount was charged.

d A salesman receives a salary of $50 a month and a commission of 4% on all sales. What must be the amount of his sales each month in order that his total monthly income may be $200?

e In 1932 approximately 150,000 American automobiles were sold in foreign countries while in 1935 the number was estimated at 420,000; find the per cent of increase.

4 On January 2, Clark and Williams received from the bank their monthly statement together with canceled checks. According to the statement the bank balance was $3961.70. The checkbook balance was $3439.81. The following checks were outstanding: $437.10, $58.23, $207.06. The statement showed that the following items, which were not recorded in the checkbook, had been paid: checks for $25 and $30, a note for $125.50.

a Reconcile the balances. [8]

b What is the correct checkbook balance? [2]

5 On January 1, 1935, Clark, Brown and Ryan entered into a partnership. Clark invested $6000, Brown $4500 and Ryan $7500. It was agreed that each partner should receive 6% annually on his investment and that the remaining profit or loss should be divided equally among the partners. At the end of the year, the gross profit on sales amounted to $6975 and other income $623. The expenses for the year amounted to $2252.

a Find the firm's net profit for the year. [1]

b Find Clark's total income for the year. [3]

c Find Brown's total income for the year. [3]

d Find Ryan's total income for the year. [3]

6 A grocer bought 10 boxes of oranges (126 to a box) at $3.25 a box. He had to throw out 5 dozen that had spoiled. If the grocer expects a profit of 20% on the cost, at what price per dozen must he sell the oranges? [10]

7 A note for $750, dated December 15, 1934, with interest at 6%, has the following payments indorsed upon it: March 27, 1935, $75; August 17, 1935, $50. What amount will be due on January 29, 1936? [10]

8 On January 7, 1936, C. H. Rowley purchased an invoice of merchandise amounting to $1500, less 20% and 10%, on terms 2/10 n/30. In order to pay for the goods on January 17, 1936, and take advantage of the cash discount, Rowley had to borrow the money from his bank, giving his 20-day interest-bearing note. By borrowing the money to take advantage of the discount, did Rowley gain or lose [2]? How much did he gain or lose [8]?

9 Wilson & Rogers of Philadelphia received from L. W. Carver of Buffalo a carload of cabbage to be sold on commission. The car contained 31,200 pounds. The freight paid by Wilson & Rogers amounted to $53.92. Before the cabbage could be sold, it had to be put into bags, each containing 40 pounds. The cost of this bagging was $25.75. Wilson & Rogers sold 250 bags at 60¢, 320 bags at 55¢ and the remainder at 45¢.

a After deducting 5% commission and all charges, how much did Wilson & Rogers remit to Carver? [8]

b What was the average amount per bag that Carver received for the cabbage? [2]

[OVER]

10 The regular factory hours of the Eastern Machine Company provide for 7 hours a day from Monday to Friday inclusive, with time and a half for overtime. During the week of January 13, William Randall, a machinist, was employed as follows: Monday 8 hours, Tuesday 7 hours, Wednesday 5½ hours, Thursday 8½ hours, Friday 7½ hours.

a If Randall's wage rate was $1.10 an hour, what was the amount of his wages for the week? [6]

b Assuming that Randall spent 25% of his earnings for rent and 20% for food, find how much money he had left out of his earnings for the week to cover all other expenses and savings. [4]

11 On assembling all of the inventory sheets in order to determine the amount of merchandise that the Enterprise Stationery Company had on hand at the end of 1935, you found the following inventory sheet which had been prepared by a new clerk:

5¼	gross XX pencils	$2.50	$ 13.13
11	dozen XXX pencils	.45	4.95
12½	gross penholders — plain	1.10	13.55
21¾	dozen penholders — cork tip	.40	8.70
15	gross #26 pens	.75	12.25
9¼	gross #106 pens	.80	7.40
135	ink erasers	.03⅓	4.45
42	boxes paper clips	.07½	3.25
32	fountain pens	1.25	40.00
			$108.03

Verify the above extensions, point out any errors and give the correct total. [10] [This is a test for accuracy; no partial credit will be allowed.]

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

a The rate of profit is sometimes computed on the selling price rather than on the cost.

b It may be possible to increase profits by reducing the selling price of an article.

c Fire-insurance policies written for a one-year period have a proportionately higher rate than those written for a three-year period.

d Government bonds usually bear a lower rate of interest than other bonds.

e Sometimes a salesman's rate of commission increases if the amount of his sales increases.