

The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION
BUSINESS ARITHMETIC

Tuesday, June 18, 1957 — 1:15 to 4:15 p.m., only

Fill in the following lines:

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

Instructions for Part I

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 and immediately handed to the examiner.

All answers must be written with pen and ink.

Scrap paper may not be used, nor may computations be made on the question paper.

Part I

RAPID CALCULATION TEST

1 a Subtract: [2]

$$\begin{array}{r} 209 \\ \underline{78\frac{5}{8}} \end{array}$$

b Make the following extensions: [4]

- 360 gallons at $16\frac{2}{3}$ cents per gallon = \$.....
- 60 quarts at 45 cents per quart = \$.....
- 3500 pounds at \$12 per M = \$.....
- 120 bushels at \$1.25 per bushel = \$.....

c Compute the interest: [5]

- \$490.50 for 60 days at 6% = \$.....
- \$1200 for 45 days at 6% = \$.....
- \$600 for 36 days at 6% = \$.....
- \$90 for 80 days at 3% = \$.....
- \$450 for 12 days at 2% = \$.....

d Underscore the correct answer for *each* of the following problems: [5]

- $\frac{1}{2}\%$ of \$640 is (\$.32; \$3.20; \$32; \$320).
- 150% of \$36 is (\$18; \$36; \$54; \$90).
- At 20 cents per pound, for \$30 a person can buy (6; 15; 150; 600) pounds.
- 48.33% expressed as a decimal to the *nearest hundredth* is (.48; .49; 4.83; 48.30).
- A tax rate of 31 mills on ¢1 expressed as a tax rate on \$1000 would be (\$.31; \$3.10; \$31; \$310).

e Complete the following summary of sales made by a retail store: [No partial credit.] [4]

| <i>Department</i> | <i>Gross Sales</i> | <i>Sales Return</i> | <i>Net Sales</i> |
|---------------------|--------------------|---------------------|------------------|
| Children's Clothing | \$2483 (less) | \$248 | \$2235 |
| Women's Clothing | 1948 | 195 | \$ |
| Men's Clothing | 1508 | 150 | \$ |
| <i>Totals</i> | \$ | \$ | \$ |

BUSINESS ARITHMETIC

Tuesday, June 18, 1957

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 time requirement is four or five recitations a week for a school year.

Part I, 1 Rapid calculation test on attached sheet. [20]

Part II

Answer any four questions from this part. All work must be shown.

- 2 Answer all parts of this question. [Two credits for each correct answer; no partial credit.] [10]
- a An invoice for \$1640 is dated August 21 and has terms of $\frac{3}{10}, \frac{2}{30}, N/60$. What amount of money would be needed if the invoice were to be paid on September 19?
 - b A sales clerk is paid a weekly salary of \$35 and is also paid a commission of 5% on all his sales. If his sales last week amounted to \$325, what was the total amount of his earnings for that week?
 - c An automobile cost \$3200 when new. After 4 years of use it had a trade-in value of \$1100. What was the amount of the average annual depreciation on this automobile?
 - d On July 1, 1956, Arthur Bates deposited \$450 in a savings bank which paid interest at the rate of 3% per year. This interest is added every 6 months. If no other deposits or withdrawals are made, how much money did Bates have on deposit January 2, 1957?
 - e Avis purchased an automobile tire listed for \$22.50 with discounts of 10% and 5%. How much did Avis pay for this tire?

3 Answer all parts of this question. [This is an accuracy test. One credit for each correct answer; no partial credit; no credit allowed unless work is shown. Wherever necessary, reduce the answer to simplest form.] [10]

- a Express 4.65 as a mixed number in *simplest form*
- b Add: 9.234; 45.67; 489.4; 84.05
- c Subtract 42.72 from 419.4
- d Divide 803.52 by 74.4
- e Multiply 904.25 by 8.2
- f Add: $13\frac{1}{2}$; $4\frac{5}{8}$; $14\frac{1}{3}$; $19\frac{1}{4}$
- g Subtract $12\frac{5}{8}$ from $72\frac{1}{2}$
- h Multiply $12\frac{1}{3}$ by $9\frac{1}{4}$
- i Divide $32\frac{1}{2}$ by $6\frac{1}{2}$
- j Express $\frac{2}{3}$ as a percent correct to the *nearest tenth of a percent*

4 Johnson purchased an apartment house for a total cost of \$75,000. He paid \$40,000 cash and gave a mortgage for the remainder. This building contained 10 apartments, each of which was rented for \$85 per month. After owning this building for one year, Johnson calculated his expenses for the year as follows: Insurance on the building, \$185; taxes, \$1165; depreciation and other expenses, \$1550; interest at 6% on the mortgage of \$35,000.

What was Johnson's annual rate percent of income that year based on his actual cash investment? [10]

5 Allen & Co. of New York received from a grower in California a carload of lettuce to be sold on commission. The car contained 650 crates. Freight and other charges paid by Allen & Co. amounted to \$492.75. The company sold 275 crates at \$3.40, 200 crates at \$3.20 and the remainder at \$2.80 a crate. After deducting commission of 5%, plus the other charges, Allen & Co. remitted the proceeds to the grower. What *average price per crate* did the grower receive as net proceeds for this transaction? [10]

6 In figuring the retail price for shoes, the Smith Shoe Company uses the following manufacturing costs per pair: labor, \$1.90; leather and trimmings, \$2.30; factory overhead, \$.60. They estimate the selling and management expenses at 15% of sales. What price per pair should the company quote for the shoes in order to make a net profit of 10% of the selling price? [10]

BUSINESS ARITHMETIC — *concluded*

Part III

Answer any four questions from this part.

7 Before buying an automobile costing \$1825, a man estimates his first year's expenditures as follows: license plates, \$18.50; insurance, \$130; gasoline and oil, \$125; interest at 6% on the cost of the car; repairs, \$65; depreciation, 35% of the cost of the car. Find the total estimated cost of operating the car the first year. [6]

8 The tax rate in a certain village is \$34.64 per \$1000 of assessed valuation. Ernest Smith owns two pieces of real estate in this village, valued at \$9600 and \$6000, respectively, and assessed at 75% of their value. Find to the *nearest cent* the total tax that he must pay. [6]

9 Mr. Henderson's bank statement as of January 31 showed a bank balance of \$1165.75. His checkbook balance was \$1319.05. Checks were outstanding for \$16.60; \$23.10; \$34.60. A deposit of \$170.50, mailed on January 31, was not recorded on the bank statement. Among the canceled checks was one for \$57.10 that Mr. Henderson had failed to record in his checkbook. Prepare a reconciliation statement and indicate the correct available checkbook or bank balance. [6]

10 Anderson and Benson formed a partnership with investments of \$45,000 and \$25,000, respectively. The partnership agreement stated that the annual net profit would be divided as follows: Each partner was to receive 6% interest annually on his investment; the remaining profit was to be divided equally. The net profit of the business for the first year was \$12,400. What amount did *each* partner receive that year as his total share of the net profit? [6]

11 Bruce Campbell discounted Jack Clark's 90-day noninterest-bearing note for \$950, dated April 10, at the local bank. The note was discounted on May 4, at 6%. Find the *net proceeds* which Mr. Campbell received from the bank. [6]

Part IV

Answer any four questions from this part.

12 Mrs. Bloom is employed by the ABC Company in the manufacturing of machine parts. She is paid at the rate of $9\frac{1}{2}$ cents for each piece completed and accepted. During the first week of June she completed the following number of pieces: Monday, 112; Tuesday, 114; Wednesday, 102; Thursday, 118; Friday, 113. A total of 19 pieces of work was not accepted. What were Mrs. Bloom's total earnings for the week? [4]

13 Olsen mixed 20 pounds of candy costing 65 cents a pound with 30 pounds of candy costing 85 cents a pound. What is the average cost per pound to Olsen of this mixed candy? [4]

14 Hoffman insured his place of business for \$65,000, divided as follows: Farmer's Insurance Co., \$35,000; American Insurance Co., \$30,000. The property was damaged by fire to the extent of \$39,000. What amount must the Farmer's Insurance Co. pay? [4]

15 Adams bought a refrigerator on the installment plan for \$360, including carrying charges. He made a down payment of one-fourth of the purchase price, the balance to be paid in 8 equal monthly payments. What would be the amount of each monthly payment? [4]

16 Barlow's electric meter read 7422 kilowatt-hours on May 1 and 7568 kilowatt-hours on June 1. If Barlow was charged $4\frac{1}{2}$ cents per kilowatt-hour for electricity, what was the amount of his bill for the month of May? [4]