

The University of the State of New York

311TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, January 23, 1951 — 8.30 to 11.30 a. m., only

Fill in the following lines:

Name of pupilName 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.

All answers must be written with pen and ink.

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

RAPID CALCULATION TEST

1-2 a Subtract: [2]

$$\begin{array}{r} 1876 \\ \underline{19\frac{2}{5}} \end{array}$$

b Make the extensions: [5]

120 yd. at $16\frac{2}{3}\phi$ per yd. = \$

24 lb. at $\$1.12\frac{1}{2}$ per lb. = \$

40 bu. at 35ϕ per bu. = \$

5 yd. at 10ϕ per ft. = \$

1400 lb. at \$40 per ton = \$

c Compute the interest: [4]

\$350 for 60 days at 3% = \$

\$1500 for 9 days at 6% = \$

\$640 for one month at $4\frac{1}{2}\%$ = \$

\$60 for 290 days at 6% = \$

d Underscore the correct answer for *each* of the following: [4]

20% more than 160 is (32; 128; 192; 200).

 $1\frac{1}{2}\%$ of \$480 is (\$3.20; \$4.80; \$7.20; \$720).

17.6% expressed as a decimal is (.176; 1.76; 17.6; 176).

If an article costing \$30 is sold for \$25, the per cent of loss based on the selling price is ($16\frac{2}{3}\%$; 20%; 25%; $83\frac{1}{3}\%$).

e Complete the following summary of clothing store sales: [No partial credit] [5]

<i>Department</i>	<i>Gross Sales</i>	<i>Sales Returns</i>	<i>Net Sales</i>
Women's	\$4684 (less)	\$487	\$4197
Men's	1953	262	\$
Children's	1106	155	\$
<i>Totals</i>	\$	\$	\$

BUSINESS ARITHMETIC

Tuesday, January 23, 1951

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.

Answer questions 1-2 in Part I, four questions from Part II, four questions from Part III and four questions from Part IV. Unless otherwise stated, all operations except mental ones are to be shown written in ink. Practical business methods must be used in solutions.

Part I, 1-2 Rapid calculation test on attached sheet. [20]

Part II

Answer any four questions from this part.

3 Answer all parts of this question. [Two credits for each correct answer; no partial credit. Answers only are required in this question.] [10]

- a An invoice for merchandise bought by Sargent was dated December 8, with terms of 1/60, N/90. What is the latest date on which he can pay the bill and still take advantage of the cash discount?
- b A desk that usually sells for \$120 less 25% is to be marked down to sell for \$75. What additional per cent of discount must be given?
- c In 1949, Fiske's net profit was \$11,386. In 1950, it was \$13,207.76. By what per cent did his profit increase?
- d After a 20% discount had been deducted from its original price, a chair sold for \$76. What was its original price?
- e Sherman insured his property for three years for \$6600. The rate for the entire three-year period was 48 cents per \$100. What was the average annual cost of this policy?

4 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 answer to simplest form.] [10]

- a Add 301.74; 29.465; 879.03; 9.214
- b Subtract 216.43 from 891.2
- c Divide 2994.78 by 21.3
- d Add $1\frac{7}{8}$; $\frac{5}{6}$; $9\frac{1}{3}$; $13\frac{3}{4}$
- e Using the four-step process, multiply $25\frac{1}{4}$ by $8\frac{1}{5}$
- f Divide $4\frac{2}{3}$ by $\frac{3}{4}$
- g Express $\frac{2}{7}$ as a decimal correct to the nearest thousandth.
- h Multiply 73.2 by 6.21
- i Subtract $14\frac{2}{3}$ from $31\frac{1}{6}$
- j Change 5 gallons 3 quarts 1 pint to pints.

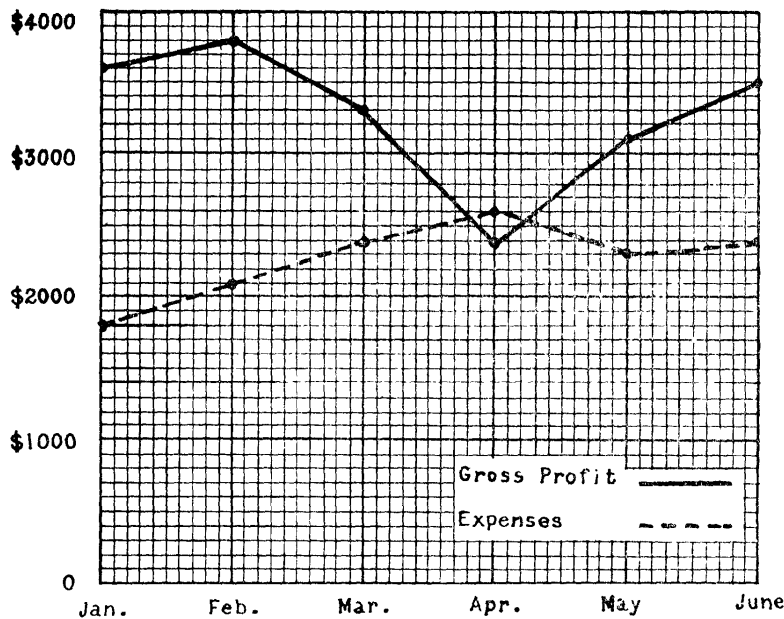
5 Foster employed a commission merchant to buy apples for him. The commission merchant purchased 450 bushels at \$4.00 per bushel, 380 bushels at \$4.25 per bushel and 260 bushels at \$5.40 per bushel. He charged Foster 8% commission on the purchase price. Storage and other expenses amounted to \$27.48. What was the average total price per bushel which Foster paid for the apples? [10]*

6 Lewis bought 550 dresses for \$10.80 each, less 10%. He sold 475 of these dresses for a total price of \$6750. At what price, to the nearest cent, must he sell each of the remaining dresses in order to make a gross profit of 40% on the cost of the entire 550 dresses? [10]*

[3]

7 The graph below shows the monthly gross profit and expenses of Thomas Jackson for the first six months of 1950.

Thomas Jackson, Gross Profit & Expenses
January - June, 1950



Using the information given by the graph, answer the following questions, showing all calculations.

- a What was Mr. Jackson's *gross profit* for January? [1]
- b What were his *expenses* for March? [1]
- c What was his *net profit* for June? [2]
- d In what month did he have a loss instead of a profit? [1]
- e In what month was his net profit the greatest? [2]
- f What was his net profit or loss for the entire six-month period? [3]

Part III

Answer any four questions from this part.

8 Holmes paid \$390 for a machine. He estimated that this machine could be operated for 6 years, at the end of which time it would have a trade-in value of \$60. What will be the estimated value of this machine after 4 years of use? [6]*

9 Kilmer bought a share of stock for \$82, including brokerage and other expenses. This stock paid a dividend of 5% on a par value of \$100. What actual per cent of return did Kilmer receive on his investment, to the *nearest tenth of a per cent*? [6]*

10 On December 31, 1950, Robert Bowen's checkbook balance was \$849.12. His bank statement showed a balance of \$1191.86. Checks were outstanding for \$79.84; \$59.73; \$27.60. A deposit of \$175.57 had been omitted from the checkbook by error. Prepare a reconciliation statement and indicate the correct available checkbook balance. [6]*

11 Lind and Butler were members of a partnership, with investments of \$26,000 and \$18,000 respectively. The partnership agreement stated that the net profit was to be divided as follows:

Each partner is to receive 5% interest annually on his investment.

The remaining profit is to be divided equally.

The net profit for the firm for 1950 was \$7580. What amount of money did Lind receive as his total share of this net profit? [6]*

12 Harrison can buy a television set for \$280 by paying cash or on the installment plan by paying 15% more. He chooses the installment plan and makes a down payment of \$75. If he pays the balance in 10 monthly installments, what amount of money must he pay for each installment? [6]*

Part IV

Answer any four questions from this part.

13 On October 18, 1950, Burnett discounted at his bank a customer's four-month promissory note, dated August 22. For how many days did the bank charge him discount? [4]*

14 Nicholson went into bankruptcy, owing a total of \$19,860. The net cash distributed to his creditors was \$9334.20. What amount of money was paid to a creditor with a claim of \$1280? [4]*

15 Ellis paid \$14.79 for a lamp. This price included a 2% retail sales tax based on the original marked price. What was the original marked price? [4]*

16 In a certain community, the total assessed valuation of all taxable property was \$3,857,219. The total amount of taxes to be raised was \$132,596. What was the tax rate per \$1000 that was necessary to raise the desired tax? [4]*

17 Bentley works on a 40-hour-per-week basis, with time-and-a-half for overtime. During a recent week he worked 46 hours. His regular hourly pay rate was \$1.20. Deductions from his total earnings amounted to \$14.86. What amount of money did Bentley receive after all deductions had been made? [4]*

* *To the teacher:* One-half the number of credits should be deducted for each different error in method. [No credit should be allowed for a solution that contains an error in method and an error in computation.]