

COMMERCIAL ARITHMETIC

Tuesday, January 23, 1934

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.

COMMERCIAL ARITHMETIC RAPID CALCULATION TEST

Tuesday, January 23, 1934 — 9.15 a. m. to 12.15 p. m.

1-2 a Add [4]

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      4 5 6
      5 7 9 4
    7 6 5 3 2
      9 6 7
    8 7 6 5 8
      4 3 6 9
      2 1 2 3
    3 5 2 5 4
      4 6 8 3
    2 8 7 6 5
      5 1 2 4
    7 1 6 7 6
      3 7 8 2
    5 2 4 9 7
      8 7 0
      4 7 4 6
    8 7 3 2 3
      1 9 5
    _____
    
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b Make the extensions: [4]
 1800 pounds @ \$16 per ton =
 125 pounds @ \$2.80 per C =
 165 articles @ \$.03½ =
 1750 articles @ \$12 per M =
 [Footing not required]

c Find the interest on *each* of the following: [4]
 \$125 for 90 days at 6% =
 \$160 for 3 months at 5% =
 \$90 for 14 days at 6% =
 \$360 for 40 days at 4½% =
 [Footing not required]

d Place answers in proper columns: [6]

<i>Marked Price</i>	<i>Selling Price</i>	<i>Cost</i>	<i>Gain</i>	<i>Rate of Gain on Selling Price</i>	<i>Rate of Gain on Cost</i>	<i>Rate of Discount on Marked Price</i>
\$60	\$50	\$40	\$10	.....	.....	.....
\$30	\$24	\$16	\$8	.....	.....	.....

e Underline the correct answer for *each* of the following: [2]

.025, expressed in per cent, is (250%; 2½%; 25%)

One hundred five ten-thousandths, expressed in figures, is (10500; .105; .0105)

COMMERCIAL ARITHMETIC

Tuesday, January 23, 1934—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 commercial 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 three-months' note, dated November 21, 1933, is discounted 20 days later. Find the length of time for which discount is charged.
- b A house is 26' x 32'. Give the dimensions of a diagram of the house if a scale of $\frac{1}{4}'' = 1'$ is used.
- c A dealer marks goods 25% above the gross cost. Find the marked price of a desk costing \$32.40, on which he had to pay freight charges amounting to \$4.80.
- d Find the area of the ceiling of a room which is 16 feet long and whose width is three fourths of its length.
- e The tax rate in a certain village is \$1.863 per \$100; what is the tax on a piece of property assessed at \$5600?

4 A sales contest is being conducted and each salesman is rated according to his weekly average amount of sales. Clark's average sales for the last 8 weeks of 1933 were \$362.15 a week. For the first 3 weeks of 1934, his sales amounted to \$415.16, \$523.25 and \$392.35 respectively. Find Clark's average weekly sales for the 11 weeks. [10]

5 An oil burner for a furnace is priced at \$355 cash. Jones buys one on the deferred-payment plan for \$362, paying \$162 when the burner is installed and the balance in four monthly instalments of \$50 each. The additional cost includes interest and finance charge.

- a At 6%, how much of the additional cost represented interest on the payments? [8]
- b What amount represented the finance charge? [2]

6 The regulated factory hours of a certain clothing company provide for a week consisting of 7 hours a day from Monday to Thursday and 8 hours on Friday with time and a half for overtime. Brown, a cutter employed in this factory at \$1.10 an hour, worked during the past week as follows: Monday 7 hours, Tuesday 8 hours, Wednesday $8\frac{1}{2}$ hours, Thursday 9 hours, Friday 8 hours. Find the amount of Brown's wages for the week. [10]

7 A savings bank pays 3% interest, compounded semiannually, on its deposits and adds the interest to the depositor's account on January 1 and July 1 of each year. E. C. Weller deposited \$200 on July 1, 1932, and \$150 on January 1, 1933. How much did Weller have on deposit on January 1, 1934, if he made no withdrawals? [10]

8 A certain wholesale house pays its salesmen a monthly salary of \$75 and commission on sales each month as follows: 5% on all sales up to and including \$500 and 8% on all sales above that amount. Hawkins, one of the salesmen, sold goods amounting to \$480 in November and \$630 in December. Find the total amount of salary and commission Hawkins received for the two months. [10]

9 The monthly rates for gas in a certain city are as follows: \$1 per M for the first 5000 cubic feet, \$.80 per M for the next 5000 cubic feet and \$.50 a thousand cubic feet for all additional gas consumed in a given month. Find the amount of M. H. Robinson's gas bill for the month of December if he used 22,150 cubic feet. [10]

10 In 1932 the Elite Shop sold goods costing \$34,680 with a mark-up of 40% on the cost, while in 1933 the goods sold cost \$43,500 and had a mark-up of 25%. The expenses for 1932 amounted to \$4250 while the 1933 expenses were \$3910.

- a State in per cent the increase or decrease of sales for 1933 over 1932. [6]
- b Assuming that there will be a corresponding rate of change in the sales for 1934 over 1933, find the amount of the anticipated sales. [2]
- c State in per cent the increase or decrease of expenses for 1933 over 1932. [2]

11 On December 31, 1933, the Columbia Grocery had in stock the merchandise listed below:

224 lbs. Lard	\$.12 $\frac{1}{2}$	\$28.00
25 $\frac{1}{2}$ doz. cans Peaches.....	1.60	41.80
15 $\frac{1}{4}$ doz. cans No. 2 Peas..	1.80	27.45
36 doz. Grapefruit	1.15	44.10
123 bu. Potatoes .....	.75	92.65
65 doz. Oranges .....	.31	20.15
76 lbs. Coffee .....	.33 $\frac{1}{3}$	25.33
550 lbs. Sugar .....	.04 $\frac{1}{2}$	24.75
48 lbs. Tea .....	.37 $\frac{1}{2}$	17.00

\$321.18

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

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

- a A manufacturer or wholesaler often publishes the trade discount for a certain article on a separate sheet rather than in the catalog.
- b The number of firms that pay their employees in currency has tended to increase during the last two years.
- c In order to increase profits, it may be desirable to reduce the selling price of an article.
- d A business man sometimes makes money by borrowing the money with which to pay for a bill of goods.
- e When fire-insurance policies are written for a period longer than one year, lower rates are offered.