

COMMERCIAL ARITHMETIC

Tuesday, January 26, 1932

NAME OF SCHOOL

NAME OF CANDIDATE

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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 26, 1932 — 9.15 a. m. to 12.15 p. m.

1-2 a Add [4]

65915  
 2844  
 310625  
 7654  
 859  
 20723  
 2844  
 422773  
 27856  
 507  
 14631  
 428  
 15742  
 9812  
 1604  
 8750  
 15621  
 434

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b Find the interest on *each* of the following: [4]

\$260 for 9 days at 6% =  
 \$200 for 3 months at 3% =  
 \$180 for 20 days at  $4\frac{1}{2}$ % =  
 \$240 for 16 days at 6% =  
 [Footing not required]

c Underline the correct answer for *each* of the following: [8]

The exact number of days from November 19, 1931, to January 15, 1932, is (67 days; 57 days; 56 days; 65 days).

If an article costing \$16 is sold at  $1\frac{3}{4}$  times the cost, the selling price is (\$12; \$24; \$28; \$20).

$\frac{1}{2}$ % of \$160 is (\$.80; \$.08; \$8; \$80).

$2\frac{1}{2}\phi$  per pound is equivalent to (\$25; \$5; \$50; \$500) per ton.

36 is  $\frac{1}{2}$  larger than (18; 24; 54; 28).

2.5% expressed as a common fraction in its lowest terms is ( $\frac{1}{40}$ ;  $\frac{1}{4}$ ;  $\frac{1}{8}$ ;  $\frac{1}{5}$ ).

$\frac{3}{4} + \frac{1}{8} + \frac{1}{2} = (1\frac{1}{2}; 1\frac{3}{8}; 1\frac{5}{16}; 1\frac{3}{4})$ .

$2.5 \times .05 = (125; 1.25; .125; 12.5)$ .

d Make the extensions: [4]

125 articles @ \$12 per C =  
 150 articles @ 22 $\phi$  =  
 224 articles @  $33\frac{1}{3}\phi$  =  
 280 articles @  $7\frac{1}{2}\phi$  =  
 [Footing not required]

COMMERCIAL ARITHMETIC

Tuesday, January 26, 1932 — 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 Copy the letters *a* to *j* and after each write the letter *T* if the corresponding statement is *true* or the letter *N* if it is *not true*. [10]

- a In shipping different kinds of merchandise to one place, the same freight rate is charged.
- b Profits paid to stockholders of a corporation are called dividends.
- c To discount a note is to sell it before it becomes due.
- d Trade discount is a deduction allowed for the payment of a bill of goods within a specified time.
- e Either the cost price or the selling price may be used as the base in finding the rate of profit.
- f Insurance companies always charge the same rate for insuring frame buildings as they do for insuring brick buildings.
- g In multiplying a number by 25, the result may be obtained by adding two ciphers to the number and dividing by 4.
- h The rate per cent is obtained by dividing the base by the percentage.
- i Each item in an invoice is a problem in itself and each extension should be separately adjusted.
- j Property tax is computed on the assessed valuation of the property rather than on the actual value.

4 Answer all parts of this question. [10] [Deduct 2 credits for each incorrect answer. Answers only are required in this question.]

- a A delivery truck cost \$1195. At the end of 4 years the owner was allowed \$225 for it toward the purchase of a new truck. What was the average yearly depreciation?
- b A gas range listed at \$65 is billed at \$52; what rate of discount is allowed?
- c Two carloads of lumber containing respectively 19,200 feet and 18,600 feet were sold at \$42 per M; how much was received for the lumber?
- d A four-months' note dated October 14, 1931, is discounted on January 5, 1932; what is the length of time for which discount is charged?
- e A desk is listed at \$75, less 20% and 10%; what is the selling price of the desk?

5 Answer all parts of this question. [10] [Deduct 2 credits for each incorrect answer. Answers only are required in this question.]

- a A chair costs \$16.50; at what price must it be sold to gain 25% on the selling price?
- b The assessed valuation of property in a certain town is \$2,804,200. If \$62,954.29 is to be raised by taxation, what tax rate per \$1000 is required?
- c If a salesman is paid \$20 a week and 3% commission on all sales, what must be the amount of his sales each week in order that his total weekly income may be \$50?
- d A house worth \$12,000 was insured for  $\frac{3}{4}$  of its value. If the rate was 55¢ per \$100, what was the amount of the premium?
- e If an investment offers a yearly return at the rate of  $6\frac{1}{2}\%$ , what amount of money must be invested to yield an annual income of \$1430?

6 In manufacturing 1200 men's suits to be sold at \$27.75 each, the costs were distributed as follows: material \$12,842.11, salaries and wages \$10,986.57, overhead \$2811.32. What per cent of the manufacturing cost was the gross profit? [10]

7 A savings bank pays 4% interest on its deposits and adds the interest to the depositor's account on June 1 and December 1 of each year. On June 1, 1929, R. H. Williams deposited \$300. If he made no withdrawals, how much did Williams have on deposit on December 1, 1931? [10] [OVER]

8 A grocer bought 5 crates of oranges, 288 to a crate, at \$5.60 per crate. He estimates that 5% of the fruit will spoil. At what price per dozen must he sell the remainder in order to gain 25% on the cost of the entire lot? [10]

9 According to the monthly statement which R. C. Moore received from his bank, his bank balance was \$2176.15. His check-book balance on that date was \$1838.14. Moore found the following checks outstanding: \$215.20, \$186.06, \$62.25. A check for \$125.50 which Moore had deposited had been returned, marked "Insufficient funds," and had been charged to his account but no record of this charge had been made in the check book.

a Find the correct check-book balance. [4]

b Reconcile the bank statement. [6]

10 On November 10, a dealer purchased goods amounting to \$1600 less 10% and 10%, terms  $\frac{2}{10}$   $\frac{n}{30}$ . In order to pay the bill on November 20 and take advantage of the cash discount, the dealer had to borrow the money from his bank, giving a 20-day interest-bearing note. By borrowing money to take advantage of the discount, did the dealer gain or lose [2]? How much [8]?

11 The employees of Rice & Company are paid on the basis of a 44-hour week with time and a half for overtime. During the month of December, Martin worked 40 hours the first week, 48 hours the second week, 47 hours the third week and 38 hours the fourth week. His regular hour rate is 55 cents. Find Martin's average weekly wage for the month of December. [10]

12 H. B. Cole bought a community hall for \$10,500 and after holding it for a year sold it for \$11,000. During the year, Cole rented the hall 163 evenings at \$25 an evening. The expenses for the year were as follows: heat and light \$186.20, insurance \$33.50, taxes \$215.30, janitor service \$1200.

a Taking into consideration the fact that Cole could obtain at the bank 4% interest on the amount he invested, find Cole's gain on the transaction. [8]

b What per cent was this gain on his investment? [2]