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 20, 1931 — 9.15 a. m. to 12.15 p. m.

1-2  a  Add  [4]
    1 5 4 2 8
    6 8 1 3
   2 4 2 7 3 7
     9 0 6
   1 0 7 5 2
    4 6 7 5
    8 2 4 4
  6 3 1 0 5 2
  7 2 9 8 3
    4 7 8
  4 4 8 6 3
    9 5 8
  6 1 5 9 5
  8 9 2 2
  1 7 0 4
  8 6 9 0
    7 8 7
  1 0 8 4 1

    c  Underline the correct answer for each of the following:  [6]
    2.5 multiplied by .05 equals (1.25; .125; .0125; 12.5).
    4% of $200 is ($ .50; $ 5; $50; $.05).
    1.5 divided by 30 equals (5; 50; .5; .05).
    28 increased by ¼ of itself is (7; 21; 35; 14).
    48 is 1/3 larger than (16; 36; 32; 64).
    The exact number of days from October 15, 1930, to December 8, 1930, is (54 days; 53 days; 54 days; 55 days).

    b  Find the interest on each of the following:  [4]
    $350 for 66 days at 6% =
    $250 for 48 days at 4½% =
    $200 for 27 days at 6% =
    $480 for 45 days at 5% =
    [Footing not required]

    d  Subtract  [2]
    11 yd 1 ft 2 in.
          3 yd 2 ft 6 in.

    e  Make the extensions:  [4]
    189 articles @ $.03½ =
    1200 pounds @ $30 per short ton =
    1750 pounds @ $12 per M =
    75 articles @ $.44 =
    [Footing not required]
S. Willis received his monthly statement from the bank, together with canceled checks. According to the statement, the bank balance was $1289.43. His check-book balance on that date was $1226.28. On examining the statement, Willis found checks outstanding for the following amounts: $125.50, $57.52, $168.30. A sight draft for $288.17 had been charged to his account but no record had been made in the check book.

1. Find the correct check-book balance.
2. Reconcile the statement.

A bicycle that was marked $36 was sold for $32.40; what rate of discount was allowed?

A clothier bought caps at $18 a dozen and sold them at $2.25 each. What was the per cent of gross profit based on the selling price?

A piece of property is assessed at $7000; find the amount of tax if the rate is $2.55 per $100.

An article costs $16.50; at what price must it be sold to gain 25% of the selling price?

A three-months note dated November 8, 1930 is discounted on December 12, 1930; what is the number of days for which discount is charged?

A man bought a house for $5600. He paid $2000 down and the remainder of the purchase price at the rate of $50 a month. How many years will it take him to pay for the house?

The base of a triangle is 30 feet and the altitude is 15 feet; what is the area?

A grocer buys peaches at $1.62 a dozen cans. If he sells them at the rate of 2 cans for 35¢, what is his profit per can?

Five workmen in a factory received the following amounts per day: $4.50, $5.00, $5.50, $5.75, $6.25. What is the average daily wage?

A house was insured for $6000 at a premium of 50 cents per $100 for three years; what is the annual insurance cost?
7 A. B. Henry owned 100 shares of Consolidated Electric stock. He authorized his broker to sell the stock at $125\frac{1}{2}$ and buy Denver $1000$ bonds at 103. The brokerage for selling the stock was $25$ and for buying the bonds $2$ for each bond.

a. What were the proceeds from the sale of the stock? [5]
b. How many bonds were purchased? [2]
c. How much money was left to Henry's credit? [3]

8 The readings of the gas and electric meters at the residence of W. H. Alling are as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Gas</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov. 15, 1930</td>
<td>61,790 cubic feet</td>
<td>3,154 kilowatt hours</td>
</tr>
<tr>
<td>Dec. 15, 1930</td>
<td>65,580 cubic feet</td>
<td>3,182 kilowatt hours</td>
</tr>
</tbody>
</table>

The rate for gas is $1.00$ per M cubic feet if paid by the first of the following month, and $1.10$ per M cubic feet if paid thereafter. The rate for electricity is $1.25$ a month minimum charge for the first 25 kw. hr. used, and 4 cents for each additional kw. hr. Alling paid the gas and electric bill on January 10.

a. Find the amount paid for gas. [5]
b. Find the amount paid for electricity. [5]

9 A farmer sent to New York to be sold on commission two carloads of potatoes weighing respectively 34,600 pounds and 36,800 pounds. Freight charges paid by the commission merchant amounted to $157.08$. Before the potatoes could be sold, it was necessary for the commission merchant to put them into sacks, each containing 100 pounds. The cost of sacking was $70.20$. The potatoes were sold for $2.50$ per sack. After deducting 5% commission for selling, what amount should be remitted to the farmer? [10]

10 On December 8, William Morton purchased an invoice of merchandise amounting to $1282.60$, subject to a discount of 2% if paid in 10 days. Morton's bank balance on December 18 was $432.50$. He held A. W. Smith's 90-day non-interest-bearing note for $1050$, dated November 12. In order that he might have sufficient money with which to pay the invoice on December 18, Morton discounted Smith's note at the bank on that date and received credit for the proceeds. Morton then paid the invoice by check.

a. What was the amount of the proceeds credited to Morton's account at the bank? [6]
b. What was the amount of the check? [2]
c. What was Morton's final bank balance? [2]

11 A. L. Black bought a house for $6400$ and gave in payment $3400$ in cash and a mortgage for $3000$, on which he has to pay $5\frac{1}{2}$% interest. The annual expenses for taxes, insurance and repairs amount to $210$. Black receives $55$ a month rent for the house. On the $3400$ invested Black could have obtained 6% income from good securities. How much did he gain annually by investing his money in the house? [10]

12 Long, Rice and Martin were partners in a milk-distributing business. Long invested $18,250$; Rice, $22,600$; Martin, $16,300$. Their agreement provided that each partner should be paid from the net profits at the rate of 6% per annum on his investment; after this deduction, any profits remaining are to be divided equally. The net profit for 1930 amounted to $14,476.80$. Find the amount of each partner's total income from the business. [10]