

## ARITHMETIC

Tuesday, June 15, 1926 — 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) grade of work completed in arithmetic. The minimum requirement is the completion of the work of the first half of the eighth grade in arithmetic.

Answer 10 questions, including two questions from each of the first three groups and four questions from the fourth group. Reduce each result to its simplest form and mark each answer Ans.

Questions 1 and 2 are given as tests for accuracy; no credit, therefore, will be allowed unless the answer is correct.

## Group I

Answer the two questions in this group.

- 1 Mental test on separate sheet. [10]
- 2 a Copy and add the following:  
14.07; 6.91; 567; 2.305; 63.71; 29.057 [2]
- b Add  $11\frac{7}{8}$  and  $3\frac{3}{4}$ . [2]
- c Multiply \$44.56 by 230. [2]
- d Multiply  $8\frac{1}{2}$  by  $2\frac{1}{2}$ . [2]
- e Divide 87.1 by .65. [2]

## Group II

Answer two questions from this group.

- 3 a Change 6 yards 2 feet to inches. [ $2\frac{1}{2}$ ]
- b How many square yards are there in a rug 12 feet by 15 feet? [ $2\frac{1}{2}$ ]
- c Subtract 3 bu. 7 qt. from 7 bu. 2 qt. [ $2\frac{1}{2}$ ]
- d Find the number of cubic feet of space in a schoolroom  
 $32' \times 24' \times 12'$ . [ $2\frac{1}{2}$ ]
- 4 a 32 is 6% of what number? [5]
- b 24 is what per cent of 400? [5]
- 5 a Change to common fractions:  
 $37\frac{1}{2}\%$ ,  $66\frac{2}{3}\%$ ,  $16\frac{2}{3}\%$ , 60%, 75% [5]
- b Change to per cents:  
 $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$  [5]

## Group III

Answer two questions from this group.

- 6 Copy and complete five of the following statements:
  - a A cube has — square faces. [2]
  - b The circumference of a circle is — times the diameter of the circle. [2]
  - c The sum received for a note discounted by a bank is called the — of the note. [2]
  - d A written promise to pay a certain sum of money to a certain party at a certain time is called a — — . [2]
  - e There are — feet in a mile. [2]
  - f In a common fraction the number below the line is called the — . [2]
- 7 Mr Clark bought an automobile; he paid part in cash and gave a 6 months' promissory note, at 6% interest, for the balance. Explain how you would find what the automobile actually cost him. [10]

8 If you were given the face of an insurance policy and the rate per \$100 a year, tell how you would find the annual premium [4]. State such a problem [3]. Solve the problem you have stated [3].

## Group IV

Answer four questions from this group.

- 9 A man buys three loads of coal, one weighing 3820 pounds, another weighing 3840 pounds and the third weighing 2840 pounds; find the amount of his coal bill if the price of coal is \$14.75 a ton. [10]
- 10 A man pays \$60 a month rent for a house. Show how much he will save or lose a year if he builds a house for \$6500 on money borrowed at 6% interest. Taxes, insurance, repairs and depreciation amount to \$187.50 a year. [10]
- 11 A man bought 15 shares of stock at \$121 a share and sold it at \$145 a share, brokerage in each case being at the rate of \$15 per hundred shares. What was the total profit? What was the per cent of profit on the money invested? [10]
- 12 Make out and receipt a bill for the following: [10]  
June 8, 1926, John Hall bought of the Northern Supply Company, Buffalo, N. Y., 2 tires @ \$9.75; 6 auto lamp bulbs @ 15 cents; 4 brake bands @ \$1.15; 2 hammers @ \$1.24.
- 13 A ladder .35 feet long just reaches the top of a building when it stands with its foot 21 feet from the wall of the building; how high is the building? [10]

# ARITHMETIC MENTAL TEST

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[Fifteen minutes allowed for this test]

Tuesday, June 15, 1926 — 9.15 a. m. to 12.15 p. m.

*Answer all parts of this test. Write each answer in the space marked  
Ans. No credit will be allowed unless the answer is correct.*

- a A train travels 900 miles in 20 hours; what is the average speed per hour? [1]  
*Ans.*
- b A house cost \$4000 and the furniture  $\frac{1}{2}$  as much; how much did both cost? [1]  
*Ans.*
- c What per cent of 60 is 12? [1]  
*Ans.*
- d A grocer sold 4 ounces of cloves from a box containing 2 pounds; how many ounces were left? [1]  
*Ans.*
- e Find the cost of 72 inches of electric cord at 9 cents a foot. [1]  
*Ans.*
- f Find the sum of  $\frac{1}{2}$  and  $\frac{1}{4}$ . [1]  
*Ans.*
- g Find the cost of one jackknife if a dozen cost \$8.40. [1]  
*Ans.*
- h A boy earns \$18.60 a week and pays  $\frac{1}{10}$  of it to a Christmas club; what does he pay each week to the club? [1]  
*Ans.*
- i What is the interest on \$500 for 6 months at 6%? [1]  
*Ans.*
- j If a girl has \$2, how much money will she have left after buying articles costing 29¢, 16¢ and 35¢? [1]  
*Ans.*