

197TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Tuesday, January 26, 1909—9.15 a. m. to 12.15 p. m., only

Answer 10 questions. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans.

- 1 Define factor, radius, quotient, numerator, right angle.
 2 Copy and add [No credit will be given unless the sum is correct]:

68530	82644
26982	63102
16450	38972
19247	97654
36293	23456
18964	
73251	
57368	
46527	
10339	

3 If the capital of a certain stock company is \$60,000 and profits amounting to \$6300 are to be distributed among the stockholders, how much profit will there be for each \$100 of the stock?

4 A note for \$420, dated April 30, 1907, with interest at 5%, is paid in full today, January 26, 1909; find the amount required to pay both principal and interest.

5 *a* Multiply 398.69 by 87.96.
b Divide 63,843.84 by 9.78. [*a* and *b* to have 5 credits each if results are correct.]

6 A broker borrows \$7500 in Boston at 4% and purchases a $7\frac{1}{2}$ % western mortgage; how much will he gain in 5 years?

7 A flagstaff 40 feet high casts a shadow 30 feet in length; what is the distance from the end of the shadow to the top of the pole?

8 What will be the cost of carpeting the floor of a room 22 ft by 18 ft, with carpet $\frac{1}{4}$ yd wide, at 85¢ a yd?

9 A man insures a house, valued at \$3500, for $\frac{1}{2}$ of its value, at $\frac{1}{2}$ %; what is his loss if the house burns? What did the insurance cost him?

10 If a bin is 3 m. long, 11.5 dm. wide and 2 m. deep, how many hectoliters of grain will it contain?

11 Make a receipted bill of the following items bought of Frank Jones by William French: 26 pounds of sugar at $5\frac{1}{2}$ cents a pound; 23 pounds of lard at $7\frac{1}{2}$ cents a pound; 3 bushels of potatoes at 78 cents a bushel; 3 gallons 2 quarts of molasses at 65 cents a gallon; 4 pounds of rice at 10 cents a pound; 8 pounds of coffee at 35 cents a pound; 3 heads of cabbage at 8 cents a head; 2 bushels 3 pecks of apples at 80 cents a bushel.

12 A man left an estate of \$150,240; he willed $\frac{1}{2}$ of it to his wife, $\frac{1}{4}$ to each of his three daughters, $\frac{1}{8}$ to his son and $\frac{1}{8}$ of the remainder to each of his two grandchildren. How much did each of the grandchildren receive? Give written analysis.