

194TH HIGH SCHOOL EXAMINATION

ARITHMETIC

Tuesday, January 28, 1908—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 liter, bank discount, prime number, par value, premium.

2 Copy and add [No credit will be given unless the sum is correct]:

3084	33624	33963	3367	33269	30499	81929	90369	84799	88499	7937	8566	88937	85939	97389	89249
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3 Find the cost of the following pieces of hemlock lumber at \$20 per thousand:

- 3 scantlings 2 inches by 4 inches by 12 feet
 4 planks 2 inches by 12 inches by 12 feet
 5 sills 12 inches by 12 inches by 12 feet

4 New York is $74^{\circ} 0' 3''$ west longitude and Chicago is $87^{\circ} 37' 30''$ west; when it is noon in New York what is the time in Chicago?

5 Solve the following [*a, b, c, d* to have $2\frac{1}{2}$ credits each if results are correct. No credit given for incorrect answers]:

$$a \quad 31\frac{1}{2} - 18\frac{1}{2} = ?$$

$$b \quad 2\frac{1}{8} + 5\frac{1}{2} + \frac{2}{3} + 6\frac{1}{2} = ?$$

$$c \quad 18\frac{1}{2} \times 23\frac{1}{2} = ?$$

$$d \quad 4\frac{2}{8} \div 12\frac{1}{2} = ?$$

6 Find the simple interest on \$921.35 from September 1, 1906 to January 27, 1908 at 5%.

7 How many hectoliters of water will a cistern hold that is 6 m long, 4 m 5 dm wide and 3 m deep?

8 Find the cost of a bill of goods amounting to \$3500 from which the following successive trade discounts were allowed: 37%, 4%.

9 A dealer pays \$30 for a case of shoes containing six pairs; if he sells the shoes for \$6.50 per pair what per cent does he make? [Give written analysis.]

10 Find the square root of 1,199,025.

11 *A, B* and *C* engage in business, *A* investing \$2000, *B* \$8000 and *C* \$10,000; find each partner's share of a gain of \$2800.

12 A cubic block of wood measures 4 feet each way; find (a) its entire surface, (b) its weight on the basis of 32 pounds to the cubic foot.