

## 1918 HIGH SCHOOL EXAMINATION

## ARITHMETIC

Tuesday, January 22, 1907—9.15 a. m. to 12.15 p. m., only

*Answer the first five questions and five of the others. Give all operations (except mental ones) necessary to find results. Reduce each result to its simplest form and mark it Ans. Each complete answer will receive 10 credits. Papers entitled to less than 75 credits will not be accepted.*

1 Simplify  $\frac{(\frac{4}{15} + 1\frac{1}{3}) \div (3\frac{1}{6} \times \frac{1}{4})}{1 - \frac{2}{3} \times \frac{3}{8}}$

2 Allowing 1000 shingles for 120 square feet, find how many thousand shingles will cover a pitched roof each side of which is 58 feet long and 24 feet wide.

3 Beans bought @ \$1.60 a bushel are sold @ 7¢ a quart; find the per cent of gain or loss.

4 A man borrowed \$875 September 27, 1905, at 5% simple interest; what is the amount of this debt today?

5 An agent charged \$6.63 for selling 52 bushels of tomatoes @ 85¢ a bushel; find the rate of his commission.

6 A train travels  $\frac{3}{8}$  of its route in  $3\frac{3}{4}$  hours; in how many hours will it travel  $\frac{1}{2}$  of its route?

7 Find to *three* places of decimals the square root of 6.

8 A six months' note for \$600, dated September 26, 1906, is discounted today at a bank at 6%; find the proceeds.

9 A tank containing 5400 liters of water, is 4 meters long, 1.8 meters wide; find the depth of the water in the tank.

10 A broker sold 40 shares of railroad stock at  $137\frac{1}{2}$ , brokerage  $\frac{1}{8}$ %; find the net proceeds of the sale.

11 Boston is  $71^{\circ} 4'$  west longitude and Rochester is  $77^{\circ} 51'$  west; find their difference in time.

12 Find the net amount of a bill of \$470, the trade discounts being 20% and 5%. What single rate of discount is equivalent to these discounts?