hundred years. We understand that the Geological Survey of the Dominion is now directing its attention to this district, and probably the next government map will solve all doubts regarding it.

THE CLASS-ROOM.

DAVID BOYLE, Toronto, Editor.

ARITHMETICAL PROBLEMS.

By LEO. B. DAVIDSON, Head Master, Public School, Goodwood.

1 A farmer has 112½ bushels of wheat and 115 bushels of barley, which he desires to put into the least number of bags, of the same capacity, without mixing the two kinds of grain. Find the cost of the bags at 15 cents each. *Ans.* $13.65.

2. In 3 days *A* can build 28 yards of fencing, *B* 50 yards, *C* 16 yards, and *D* 40 yards. If *D* values his services at 60 cents per day, find the least sum that should be paid him for building a number of yards of fencing that would afford an exact number of days' work for any one of the four men.

Ans. $42.

3. In a six days' race —"go-as-you-please"— a person goes 405 miles. How far did he go the third day if he diminished his speed 5 miles daily after the first day?

Ans. 70 miles.

4. A farmer has an orchard of 10 acres. On ⅔ of the remainder of his farm he sows wheat, on ¼ of what is left he sows barley, and then he finds he has 6 acres less than ⅔ of the second remainder for other grains. Find the size of his farm. *Ans.* 100 acres.

5. A candidate must get ½ of the aggregate number of marks to pass an examination. He answers on the average 7½ questions out of every 10, but to four of his answers out of every five the examiners assign on the average but ⅔ of the maximum number of marks, and thus he fails by 55 marks. How many marks did he obtain? *Ans.* 195 marks.

6. The population of a city annually increases and decreases by $\frac{1}{10}$ for four years. At the end of that period will the population be greater or less than at first, and by how much of the original population?

Ans. Less by $\frac{19}{100}$ of first population.

7. A hotel-keeper buys 62½ gallons of brandy at $4.50 per gallon. He desires to dilute it with water to such an extent that he may gain $40, after allowing his bar-tender ¼ of the gross profits, and yet be able to tell his customers that he sells at his buying price. How many gallons of water does he add? *Ans.* 10 gallons.

8. An apothecary who makes in his regular line of business a profit of ⅓ of cost, buys salts from a wholesale grocer at 5⅓ cents per lb. (Avoir.). At what price per lb. (Apoth.) must he sell the same that he may gain ⅓ of his regular prices? *Ans.* 8 cents.

9. A farm of 120 acres is 40 chains long. How long would it take a boy to walk round the farm, supposing he takes 88 steps of 3 feet each every minute?

Ans. 35 minutes.

10. A merchant ships to Toronto by Grand Trunk Railway seven car loads of wood, for which he gave $3.25 per cord. Supposing the wood to be piled four feet high on cars 30 ft. x 8 ft., find the selling price per cord, in Toronto, that he may gain $29.75, after allowing $7 per car for freightage.

Ans. $4.75.

COUNTY OF VICTORIA PROMOTION EXAMINATIONS.

DECEMBER, 1884.

Fourth Class Junior.

ARITHMETIC.

1. A room is 36 ft. long and 24 ft. wide. Find the cost of carpet 27 inches wide at $1.15 a yard.

2. A man owns three-eighths of a ship, and sells two-thirds of his share for $1260. What is the value of the ship?

3. If telegraph posts are placed 80 yards apart, and a train passes one every 4 seconds, how many miles an hour is it running?

4. How many yards of paper 22 inches wide are required to cover the 4 walls of a room 24 ft. long, 16 ft. wide and 11 ft. high?

5. How many seconds from March 7th at noon to November 20th at 3 p.m.?