

7. A man bought from a merchant what he supposed was \$2.50 worth of tea, but by the use of false scales he was cheated 15½ cents. Find the true weight of the merchant's "pound" weight. *Ans.* 15 oz.

8. A merchant bought a bankrupt stock at 62½ cents on \$1. On half the stock he realized 10 per cent. less than the original price, and on the remainder he realized 40 per cent. less. Find his gain per cent.

Ans. 80 per cent.

9. How many lots, each containing ¾ of an acre, can be made from a piece of property 44 chains square? *Ans.* 11.

10. A man has a square field containing 2½ acres. How many furrows, each 9 in. wide, must he plough across it to turn up an acre? *Ans.* 176.

EDUCATION DEPARTMENT ONTARIO.

GOMA AND PARRY SOUND TEACHERS'
EXAMINATION, JULY, 1886.

ARITHMETIC.

Time—Two hours and a half.

1. Define factor, highest common factor, least common multiple, per cent., discount, decimal, decimal fraction. [7.]

2. Simplify :

$$(a) \frac{10\frac{3}{4} - 7\frac{1}{2}}{12\frac{2}{3} - 9\frac{1}{4}} - \frac{8\frac{3}{4}}{19\frac{1}{2}} \times \frac{12\frac{1}{2}}{16\frac{1}{2}} \div 3\frac{1}{2} + 18\frac{1}{2}. \quad [15.]$$

$$(b) 7\frac{1}{2} - 8\frac{1}{2} - 12\frac{1}{2} + 7\frac{1}{2} - (5\frac{1}{2} - 6\frac{1}{2} - 7\frac{1}{2} + 10\frac{1}{2}) + 15\frac{1}{2}. \quad [15.]$$

3. A merchant bought a quantity of cloth at 3 yards for 1 shilling, and ¾ as much at 5 yards for 2 shillings; and sold the whole at 15 yards for 7 shillings. How many yards at this rate must he sell to clear \$1.12? (20 cents to the shilling). [15.]

4. A and B can do a piece of work in 20 days; B and C can do the same work in 25 days, and A and C in 30 days. If A and B work 5 days, and C 20 days, how long will it take B to finish it? [14.]

5. A speculator loses ¼ of his money and then gains \$14; he then loses ½ of what he

now has, and gains \$8, when he retires as he began. What amount had he at first? [12.]

6. A merchant has teas worth 30, 40, 80 and 83½ cents per lb. respectively; he wishes to make a mixture amounting to 80 lbs. so as to sell at 70 cents per lb., and gain 20 per cent. on the whole. How much of each kind must he use? [15.]

7. A broker invested a certain sum of money in railway stock at 88 and paying 6 per cent. dividend, and four times as much bank stock at 80, and paying 5 per cent. dividend; his income from both investments was \$1,400. How much did he invest in each kind of stock? [15.]

8. The amount of two notes is \$400; they are drawn for one year; the one is discounted at a bank, and the other at true discount. The sum of both discounts is \$38. Money being worth 10 per cent. what is the face of the note discounted at bank discount? [15.]

9. How far may a boat, whose velocity is 8 miles an hour in still water, go up a stream whose rate is 4 miles an hour, so that the round trip (going and returning) may take only eight hours? [12.]

10. Two vessels, one in the form of a cube, and the other in the form of a cylinder, together hold 71½ gallons of water. The diameter of the cylinder is 16 inches, and the depth of side 30 inches. If a gallon of water weighs 10 lbs., and a cubic foot 1,000 ounces, find the dimensions of the cube. [15.]

PRIMARY SCHOOLS (PHILADELPHIA).

TERM EXAMINATION, JUNE 16, 1886.

SEVENTH GRADE—DRAWING.

1. Draw two horizontal parallel lines entirely across the paper, and five inches apart. From the lower to the upper draw eight oblique parallel lines one-half inch apart. (Credits 0 to 15.)

This is to be done by the class simultaneously; the teacher counting one, two, three, four, five, etc., for the lines in succession with a sufficient pause between. But one trial to be allowed, and no erasures.