

Divide one hundred and eight billion, four hundred and nineteen million, seven hundred and sixteen thousand and one, by eighteen million, seven hundred and forty-eight thousand and five.

Ans. 5783-3086.

2. Find, by "casting out nines," whether the following is correct:— $349751 \times 28637 = 10015819397$.

Find the weight of 500000 bricks at 4 lbs. 2 oz. each, and the cost—in dollars and cents—at 27s. 6d. each., allowing 4s. 2d. to make a dollar.

Ans. 2062500 lbs. \$3300000.

3. A merchant received from England the following invoice in sterling:—

375 tons iron plates, at £8 15s. 6d.; 107½ tons bar iron, at £11 14s.; 10 tons bulb iron, at £10 10s.; 17 tons T iron, at £15 10s.; 48 tons steel, at £18 7s. 6d.; 15 tons rivets, at £11 1s. Find the amount of this invoice in Canadian currency, allowing the shilling sterling to be equal to 24½ cents.

Ans. \$29027.84½.

4. At \$1.75 per rod, what will it cost to fence a piece of land 63.5 rods long and 27.75 rods wide?

Ans. \$319.37½.

5. Simplify $1 - \frac{1}{8} + \frac{1}{24} - \frac{61}{5040} + \frac{277}{72576}$;

$= \frac{314513}{362880}$, and

$$\frac{4\frac{1}{10} + 5.81 - 2.5}{4\frac{1}{10} \text{ of } 32 \text{ of } .45} = \frac{441}{3760}$$

6. Gunpowder is composed of nitre, charcoal, and sulphur, in the proportion of 15, 3 and 2. A certain quantity of gunpowder is known to contain 20 cwt. of charcoal; find its weight, and also the weight of nitre, and of sulphur it contains.

Ans. Weight 133½ cwt.; 100 cwt. nitre and 13½ sulphur.

7. Bought 360 gallons of wine at \$2 60 a gallon; paid for carriage \$17.20, and for duties \$86.50. If ⅓ of it be lost by leakage, at what price must the remainder be sold to gain \$50 on the whole transaction?

Ans. \$3.56½ a gal.

8. Find the interest on a note for \$257.81, dated January 3rd, 1883, and paid April 6th, 1883, at 8 per cent. per annum.

Ans. \$5.42½.

The length of a second's pendulum is 39.37079 inches; if 64 French metres are equal to 70 yards, by what decimal of an inch will the length of a second's pendulum differ from one metre?

Ans. .00421 in.

10. At what times between 4 and 5 o'clock are the hands of a clock (1) coincident, (2) at right angles?

Ans. 21⅙', 5⅙'.

CONTEMPORARY LITERATURE.

REPORT OF THE MINISTER OF EDUCATION FOR ONTARIO, FOR THE YEAR 1882. Printed by Order of the Legislative Assembly, by C. Blackett Robinson, Toronto.

THE delay in the publication of this report, we learn, arises from a cause which all connected with our schools must sincerely regret, the serious illness of Mr. Crooks. We hope that the Minister's sojourn in Europe will have the effect of restoring him to his wonted health.

The report before us is divided into four parts. The first is devoted to the proceedings of the Education Department during the year 1882; the second to the statistics of the

Public, Separate, and High Schools for the year 1881; the third comprises a report by Dr. McLellan, on Normal School Training, and Elementary and Secondary Education in the United States, and one by Mr. Hughes, Inspector of Toronto, on the Kindergarten system. The fourth deals with Technical Education in the School of Practical Science, the Art Schools and Mechanics' Institutes.

The first two parts are those that more immediately concern our readers, and it is to these we shall for the present confine our attention. Chronologically, we begin with the