

7. $x^2 + y^2 - x - y = 14$; and $2x + 2y + 2xy = 28$. By addition, $(x + y)^2 + (x + y) = 42$; complete the square, &c.; $x + y = 6$, and $x^2 + y^2 = 20$; $\therefore x = 4$, and $y = 2$.

CORRECT SOLUTIONS RECEIVED.

J. W. Henstridge, Collins' Bay, solved all; Duncan McEachran, Mount Forest, 1, 2, 3, and 7; Robert J. Walsh, Albion, 1, 2, and 7; John Ireland, 7; Daniel Drummie, Solina, 7; Joseph Watson, Vaughan, 2.

SOLUTIONS TO THE FOLLOWING PROBLEMS REQUIRED,

Address Solutions to A. Doyle, Ottawa.

1. A owes B \$1000, and agrees to pay him in ten equal annual instalments, at a rate per cent., simple interest, equal to the true equated time for all the payments: how much must B receive annually?

2. $x^{\frac{1}{5}} + y^{\frac{1}{5}} = a$; $x + y = b$; 3. $x^{\frac{1}{3}} + \sqrt{x^{\frac{1}{3}}y^{\frac{1}{3}}} + y^{\frac{1}{3}} = a$.
 $x^{\frac{1}{3}} + \sqrt{x^{\frac{1}{3}}y^{\frac{1}{3}}} + y^{\frac{1}{3}} = b$.

4. A rectangular vessel of sheet-iron is 6 feet long, 2 feet wide, and $1\frac{1}{4}$ in depth; it sinks 3 inches in common water; required the thickness of the sheet-iron.

5. Required the length of a line, drawn from a given point, in one of the sides of a given triangle, so as to cut off $\frac{2}{3}$ of the area.

6. The sum of the diagonal and length of a right-angled parallelogram is given, to construct it when the square of the diagonal is equal to n times the square of the less side.

7. A body falling from the top of a tower, was observed to descend through $\frac{1}{n}$ part of its altitude in the last second. Required the whole time of descent, and altitude of the tower.

8. If a tube of two inches in width, under a pressure of two feet, deliver 10 cubic feet of water per minute, its co-efficient of efflux or velocity is required.

REMITTANCES BY INSPECTORS AND TRUSTEES TO THE EDUCATION DEPARTMENT.

Persons having to make remittances to the Education Department of Ontario, will please send the same, if to the amount of \$50 or over, through an agency of the Bank of Commerce, or the Bank of Montreal, if there be one in the neighbourhood. The amount can be deposited at the agency to the credit of the Chief Superintendent, and the duplicate bank receipt enclosed with the letter of advice to the Education Department.

IX. Advertisements.

University of Trinity College.

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