

2° Une étendue de terre située sur la côte sud de la rivière Saint-Charles; bornée au nord par ladite rivière, au sud par la paroisse de Sainte-Foye, à l'est par la cité de Québec, et à l'ouest par la paroisse de l'Ancienne-Lorette. Numéros de cadastre 2343, 2346, 2354, 2356, 2357, 2360, 2361, 2364, 2365, 2366, 2367, 2372, 2373, 2376, 2377.

3° Lot de cadastre numéro 12 de l'Ancienne-Lorette.—*Gazette officielle*, 15 mai dernier.

Association dentaire de la province de Québec.

EXAMEN PRÉLIMINAIRE.

MEI CREDI, LE 7 AVRIL 1897.

Examineurs: { H. Aspinwall Howe, M. A., LL. D.
L'abbé Verreault, LL. D.

(Suite.)

ARITHMETIC.

1. Add together $1\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{5}$, and $\frac{5}{21}$. Then find what fraction the sum is of $\frac{5}{8}$ of $\frac{10}{13\frac{1}{3}}$

2. Simplify $\frac{2\frac{1}{5} + .66}{5-.0625}$ employing decimal operations only.

The base of the great pyramid of Egypt, when complete, was a square covering 583696 square feet. Find the length of a side of the square.

(Candidates will try only Nos 4 and 5, or else Nos 6 and 7 only of the following.)

4. The metre, which is equal to 39 37079 inches, was intended to be the ten-millionth part of the distance from the Earth's pole to the equator, but it has been found to be shorter than intended by about $\frac{1}{100}$ of an inch. Calculate how many more than ten million metres are contained in the distance named.

5. A bankrupt owes three creditors A, B, C, \$700, \$840 and \$1050 respectively. His property is worth \$1480; how much will each creditor receive?

6. A person, after paying an income-tax of $2\frac{1}{2}$ cents in the dollar, has \$4290 left. What is his income?

The unit of weight in the metrical system is the *gramme*. Define it, and calculate the weight in pounds Avoir-du-poids of a kilogram of lead, which is $11\frac{1}{2}$ times heavier than water, the gramme being equal to 15.432 grains, and the pound Avoir-du-poids equal to 7000 grains.

ALGÈBRE.

1. Soustrayez $2-3x$ de $x^2 - x + 1$ et multipliez le reste par le carré de $x-1$.

2. Divisez $4 - 2x - 24x^2 + 8x^4$ par $4x^2 - 6x - 1$, et faites voir que x doit éгалer $\frac{2}{3}$ pour qu'il n'y ait point de reste.

3. Donnez les facteurs de $a^2 - 14a - 72$ et de $x^2 + 2ax - x - 3a$.

4. Simplifiez :

$$\left(\frac{a}{a-1} - \frac{a-1}{a}\right) \left(1 - \frac{1}{2a-1}\right)$$

5. Résolvez les équations:—

$$(A) \frac{a(a-x)}{b} - \frac{b(b+x)}{a} = x$$

$$(B) \left\{ \begin{aligned} \frac{1}{3}(x-1) &= \frac{1}{4}(y+1) \\ \frac{2x-3}{5} + \frac{2y-13}{7} &= 0 \end{aligned} \right\}$$

6. Si j'ajoute 17 au carré d'un certain nombre, j'obtiens le carré du plus grand des deux nombres voisins. Quel est ce nombre?

ALGEBRA.

1. Subtract $2 - 3x$ from $x^2 - x + 1$ and multiply the remainder by the square of $x-1$,

2. Divide $4 - 2x - 24x^2 + 8x^4$ by $4x^2 - 6x - 1$ and shew that in order that there may be no remainder, x must be $\frac{2}{3}$.

3. Resolve into factors $a^2 - 14a - 72$ and $x^2 + 3ax - x - 3a$.

4. Simplify :

$$\left(\frac{a}{a-1} - \frac{a-1}{a}\right) \left(1 - \frac{1}{2a-1}\right)$$

5. Solvè the equations:—

$$(A) \frac{a(a-x)}{b} - \frac{b(b+x)}{a} = x$$