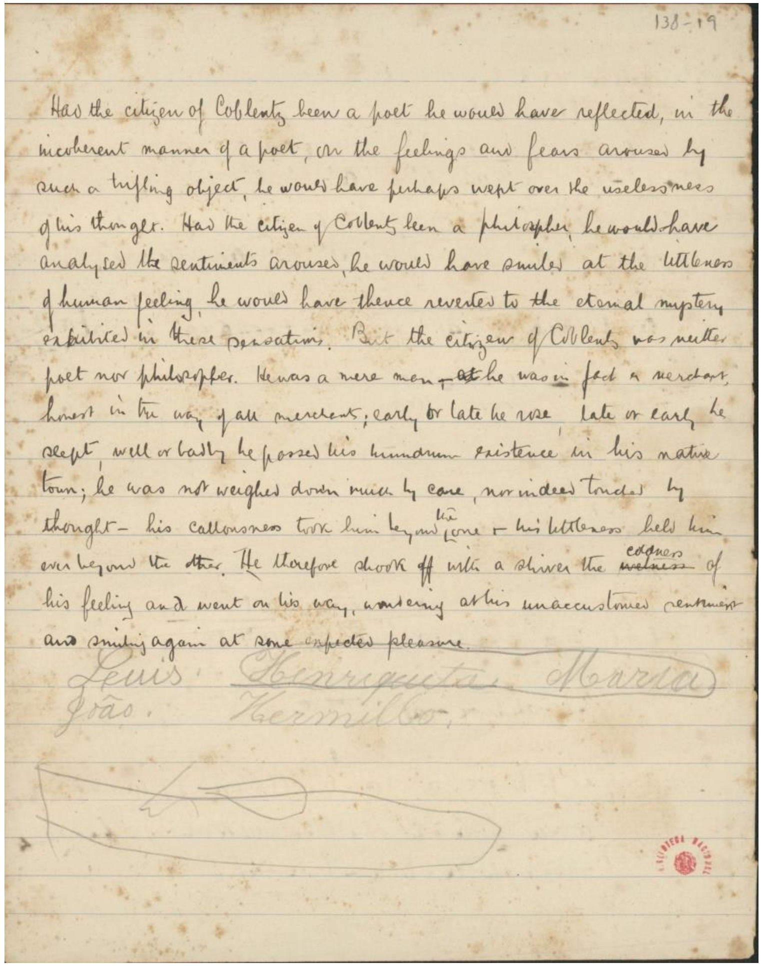
BNP/E3, 138 – 19r

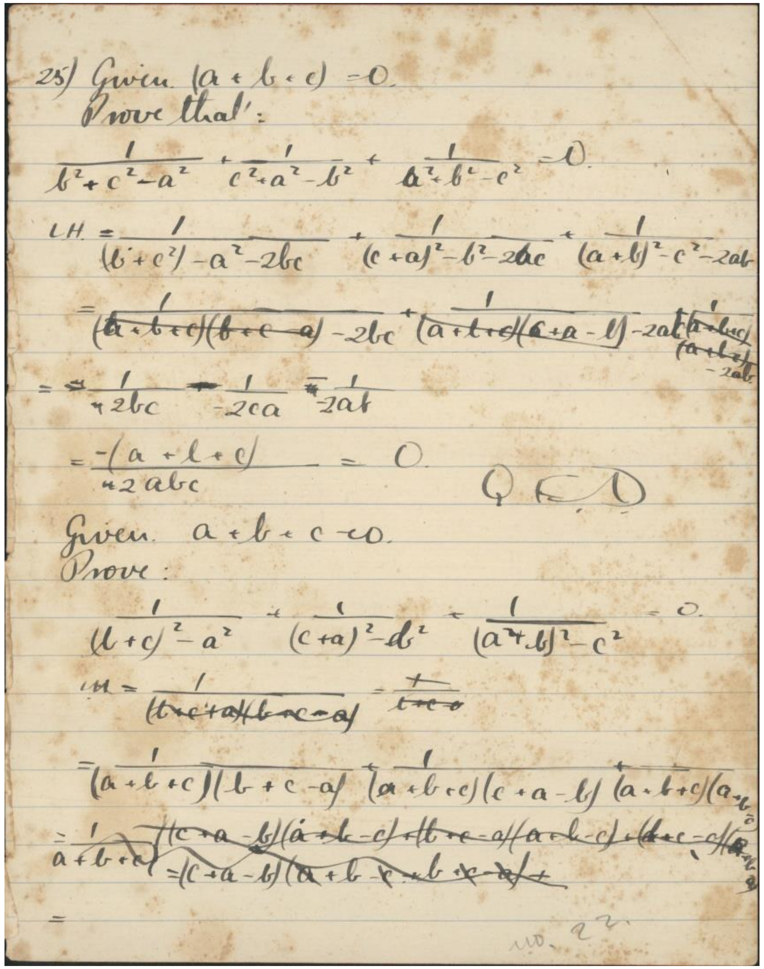


Transcrição

Had the citizen of Coblentz been a poet he would have reflected, in the incoherent manner of a poet, on the feelings and fears aroused by such a trifling object, he would have perhaps wept over the uselessness of his thought. Had the citizen of Coblentz been a philosopher, he would have analysed the sentiments aroused, he would have smiled at the littleness of human feeling, he would have thence reverted to the eternal mystery exhibited in these sensations. But the citizen of Coblentz was neither poet nor philosopher. He was a mere man — ~~at~~ he was in fact a merchant, honest in the way of all merchants; early or late he rose, late or early he slept, well or badly he passed his humdrum existence in his native town; he was not weighed down much by care, nor indeed touched by thought — his callousness took him beyond the one — his littleness held him ever beyond the other. He therefore shook off with a shiver the ~~wetness~~ coldness of his feeling and went on his way, wondering at his unaccustomed sentiment and smiling again at some expected pleasure.

Lewis. Henriqueta Maria.
João. Hermillo.

BNP/E3, 138 - 19v



Transcrição

25) Given (a + b + c) = 0.
Prove that:

$$\frac{1}{b^2+c^2-a^2}+\frac{1}{c^2+a^2-b^2}+\frac{1}{a^2+b^2-c^2}=0$$

$$\text{L.H.}=\frac{1}{(b^2+c^2)-a^2-2bc}+\frac{1}{(c+a)^2-b^2-2ac}+\frac{1}{(a+b)^2-c^2-2ab}$$

~~$\frac{1}{(a+b+c)(b+c-a)-2bc}$~~ + ~~$\frac{1}{(a+b+c)(c+a-b)-2ac}$~~ + ~~$\frac{1}{(a+b+c)(a+b+c)}$~~ $-2ab$

$$=\frac{1}{-2bc}+\frac{1}{-2ca}+\frac{1}{-2ab}$$

$$=\frac{-(a+b+c)}{-2abc}=0$$

Q. E. D.

Given. a + b + c = 0
Prove:

$$\frac{1}{(b+c)^2-a^2}+\frac{1}{(c+a)^2-b^2}+\frac{1}{(a+b)^2-c^2}=0.$$

~~$\frac{1}{(b+c+a)}$~~ = ~~$\frac{1}{b+c-a}$~~

$$=\frac{1}{(a+b+c)(b+c-a)}+\frac{1}{(a+b+c)(c+a-b)}+\frac{1}{(a+b+c)(a+b+c)}$$

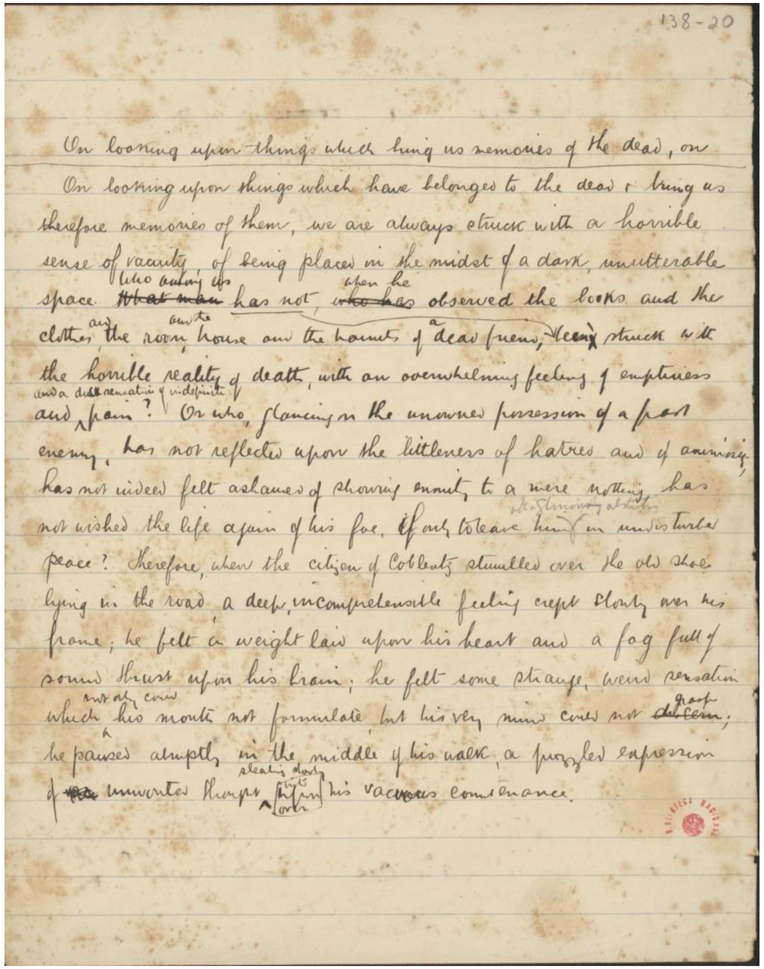
~~= $\frac{1}{(a+b+c)}$ (c + a − b) (a + b − c) + (b + c − a) (a + b − c) + (b + c − a) (c + b − a)~~

~~= (c + a − b) (a + b − c + b + c − a) +~~

= {…}

no. 22.

BNP/E3, 138 – 20r



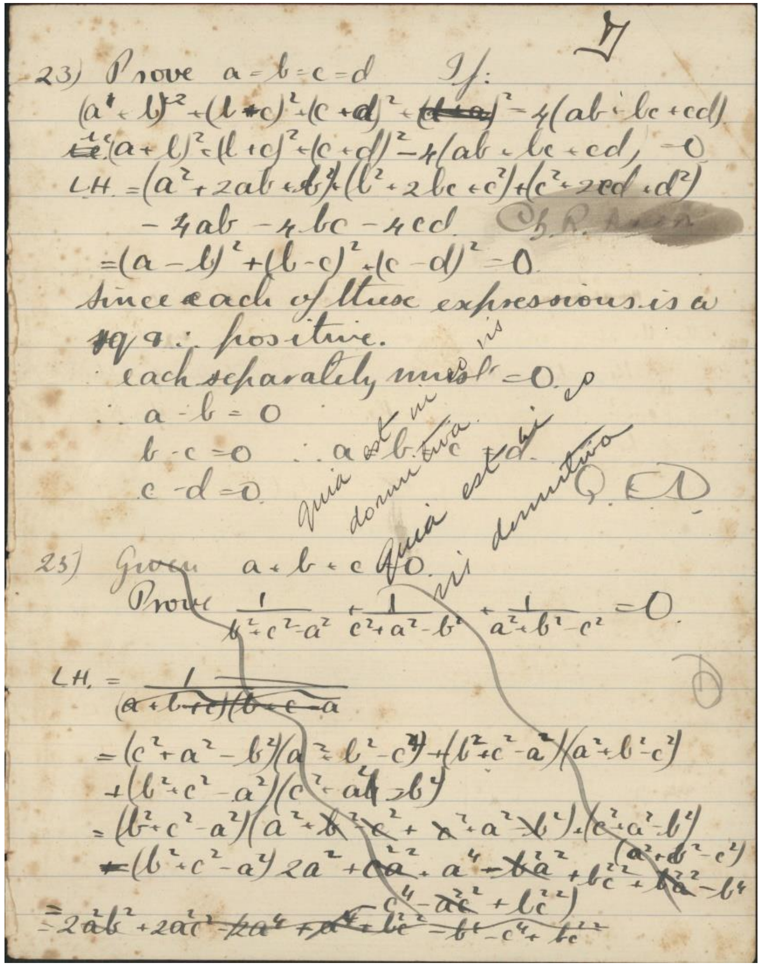
Transcrição

On looking upon things which bring us memories of the dead, on {…}

____

On looking upon things which have belonged to the dead and bring us therefore memories of them, we are always struck with a horrible sense of vacuity, of being placed in the midst of a dark, unutterable space. ~~What man~~ Who leaving us, ~~who has~~ when he observed the looks and the clothes, /and\ the room, /and the\ house, and the haunts of a dead friend, has not been struck with the horrible reality of death, with an overwhelming feeling of emptiness and and a dark sensation of indefinite pain? Or who, glancing on the unowned possession of a past enemy, has not reflected upon the littleness of the hatred and of animosity, has not indeed felt ashamed of showing enmity to a mere nothing, has not wished the life again of his foe, if only to leave him with a glooming~~ly~~ abstention in undisturbed peace? Therefore, when the citizen of Coblentz stumbled over the old shoe lying in the road, a deep, incomprehensible feeling crept slowly over his frame; he felt a weight laid upon his heart and a fog full of sound thrust upon his brain; he felt some strange, weird sensation which not only could his mouth not formulate, but his very mind could not ~~discern~~ grasp; he paused abruptly in the middle of his walk, a puzzled expression of ~~won~~ unwonted thought sleazing slowly upon /into\ /over\ his vacuous countenance.

BNP/E3, 138 - 20v



Transcrição

D

23) Prove a = b = c = d   If:
$(a^2 + b)^2 + (b + c)^2 + (c + d)^2 +$ ~~$(d + a)$~~$^2 = 4(ab + bc + cd)$.
~~ie.~~ ie $(a + b)^2 = (b + c)^2 + (c + d)^2 - 4(ab + bc + cd) = 0$
L.H. = $(a^2 + 2ab + b^2) + (b^2 + 2ab + c^2) + (c^2 + 2cd + d^2)$
$- 4ab - 4bc - 4cd$.
$= (a - b)^2 + (b - c)^2 + (c - d)^2 = 0$
Since each of these expressions is a † .·. positive.
.·. each separately must = 0
.·. $a - b = 0$
$b - c = 0$.·. $a = b = c = d$.
$c - d = 0$

Q. E. D.

25) ~~Given a + b + c = =~~
~~Prove $\frac{1}{b^2+c^2-a^2} + \frac{1}{c^2+a^2-b^2} + \frac{1}{a^2+b^2-c^2} = 0$~~
~~L.H. = $\frac{1}{(a+b+c)(b+c-a)}$~~
~~$= (c^2 + a^2 - b^2)(a^2 + b^2 - c^2) + (b^2 + c^2 - a^2)(a^2 + b^2 - c^2)$~~
~~$+ (b^2 + c^2 - a^2)(c^2 + a^2b - b^2)$~~
~~$= (b^2 + c^2 - a^2)(a^2 + b^2 - c^2 + c^2 + a^2 - b^2) + (c^2 + a^2 - b^2)(a^2 + b^2 - c^2)$~~
~~$= (b^2 + c^2 - a^2)2a^2 + ca^2 + a^4 - b^2a^2 + b^2c^2 + b^2a^2 - b^4$~~
~~$= 2a^2b^2 + 2a^2c^2 - 2a^4 + a^4 + b^2c^2 - b^4 - c^4 + b^2c^2$~~

Ch. R. Anon.

quia est in eo vis dormitiva

quia est in eo vis dormitiva

DIREITOS ASSOCIADOS