

Title

Enigma n°X

25th June 2024

[statement...]



Legend

[question...]

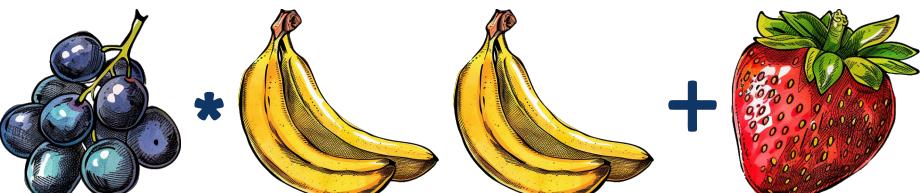
Fruits Equations

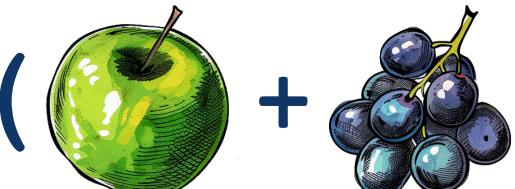
Enigma n°1

25th June 2024


$$3 \text{ bananas} = 12$$


$$\text{Strawberry} / 2 + \text{Grapes} = 24$$


$$2 \text{ bunches of grapes} * 2 \text{ bunches of bananas} + \text{Strawberry} = 126$$

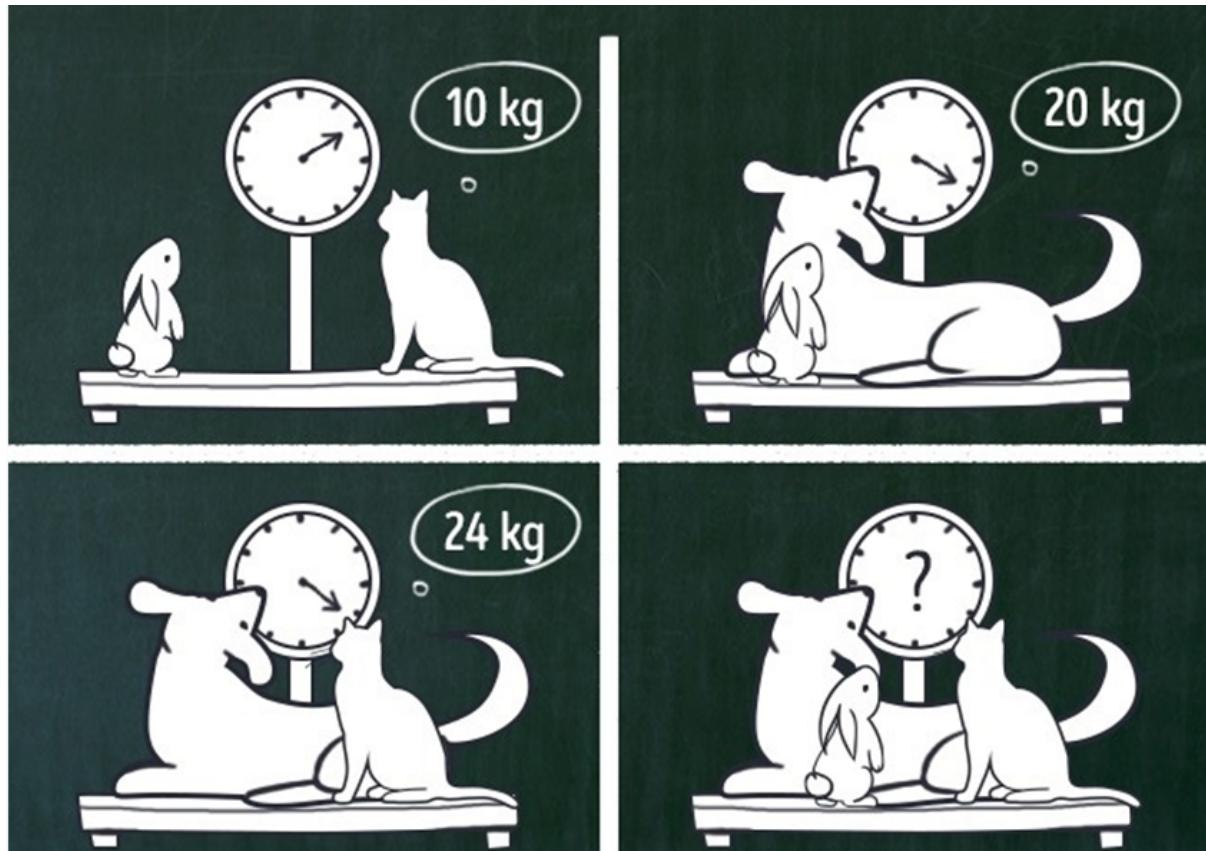

$$(\text{Apple} + \text{Grapes}) * 3 = 54$$


$$\text{Strawberry} + \text{Apple} * \text{Grapes} = ?$$

Animals Equations

Enigma n°2

25th June 2024



What is the mass of the three animals combined?

Following Number

Enigma n°3

25th June 2024

Here is a logical sequence of numbers:
177 - 192 - 204 - 210 - ...

Find the number following 210.



The children of Véronique

Enigma n°4

25th June 2024

Véronique has three children: Pi, Racine and Hélène.
They are either rational or irrational; Rational kids always tell the truth
but irrational ones always lie.

Véronique asks Pi: Are you rational or irrational?
Pi responds stammering, Véronique does not hear his response.
Racine then says "Pi said he was irrational",
Hélène intervenes and says "Don't believe Racine!".

Is Racine rational or irrational?

π √ ln

The reindeers of CentraleSupélec

Enigma n°5

25th June 2024

Students ask for more holidays to the director of CentraleSupélec.
The director tells them "Very well, if you find the answer to my problem,
you will have 2 days off!".

CentraleSupélec owns three reindeers.

The sum of their ages is equal to my mailbox number.

The product of their ages is 36.

How old are the reindeers?

The students reply "We're missing some information".

The director replies: "You're right, here it is, the eldest of my reindeer is spotted."

The clever students tell him the age of his reindeer...

How old is the eldest reindeer?



Smallest number of weight 25

Enigma n°6

25th June 2024

We call the weight of a number the sum of its digits.
What smallest number will then weigh 25?



Decoding

Enigma n°7

25th June 2024

Each letter always represents the same number. You have to find the numbers corresponding to the letters so that the addition result remains correct. What is the minimum value of CODE?

$$\begin{array}{r} \text{OEUF} \\ + \text{JEUX} \\ \hline \text{CODE} \end{array}$$

Treasure Safe

Enigma n°8

25th June 2024

The safe code is made of 4 digits, all different.

Four people have tired before you, and the master keeping the safe gave some clues:

- 8 0 7 4: Two numbers are correct and well placed.
- 3 7 8 2: A number is misplaced but correct.
- 7 5 1 9: Nothing is correct.
- 5 1 2 0: Two digits are misplaced but correct.

What is the safe code?



Juggler of "Nuit Des Troubadours"

Enigma n°9

25th June 2024

A CentraleSupélec student is performing at the NDT ("Nuit Des Troubadours"). To please the scientific audience, he claims that at some point, the sum of the balls numbers will be equal in all ellipses. The balls are labeled from 1 to 9 (and balls are all labeled with a different number).

Reading from left to right, what number is formed by the juggler?

Give the smallest of all the possibilities.



Bear hype, or not?

Enigma n°10

25th June 2024

At the beginning of September 2023, there were 50 times more bearded than beardless students at CentraleSupélec. But over the course of the year, 60 bearded students started shaving. In addition, among the students who used to shave, 5 left CS to pursue a university degree, and 10 ultimately opted for the bearded hipster look. At the end of the year, there were only 30 times more bearded people than hairless people.

How many students were there at the beginning of September?

