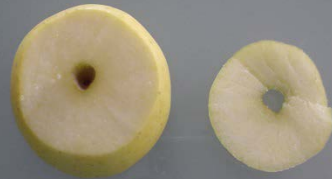
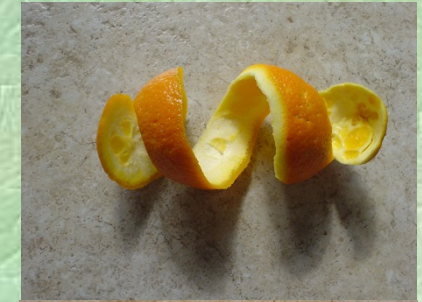
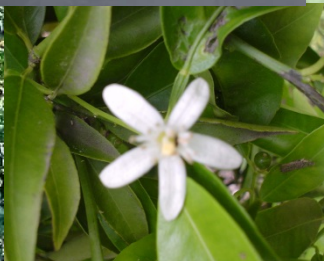


Mathematics in Golden fruits

The salesman optimizes the piling up. The flowers remember us the golden number Phi and diedric group D5
The flat sections of the orange are always circles, so, the orange is a sphere, the number Pi is everywhere.
Some sections of the apple are torus sections. Some flat sections of the torus are banana sections.



Arc revolution makes an orange, an apple or a banana, it depends on the arc is constant or not, and how large is it.



ICME Copenhagen

The golden fruits

In the country known as Hesperitis there were two brothers whose fame was known abroad, Hesperos and Atlas. These brothers possessed flocks of sheep which excelled in beauty and were in colour of a golden yellow, this being the reason why the poets, in speaking of these sheep as mela, called them golden mela, oranges or bannanas in the other countrys. Now Hesperos begat a daughter named Hesperis, who he gave in marriage to his brother and after whom the land was given the name Hesperitis; and Atlas begat by her seven daughters, who were named after their father Atlantides, and after their mother Hesperides. And since these Atlantides excelled in beauty and chastity, Busiris the king of the Aigyptians, the account says, was seized with a desire to get the maidens into his power; and consequently he dispatched pirates by sea with orders to seize the girls and deliver them into his hands ... [Herakles slew Busiris] Meanwhile the pirates had seized the girls while they were playing in a certain garden and carried them off, and fleeing swiftly to their ships had sailed away with them. Herakles came upon the pirates as they were taking their meal on a certain strand, and learning from the maidens what had taken place he slew the pirates to a man and brought the girls back to Atlas their father; and in return Atlas was so grateful to Herakles for his kindly deed that he not only gladly gave him such assistance as his Labour called for.” –*Diodorus Sicululs 4.26.2 [Diodorus here gives his own rational interpretation of the myth]*

Mathematiques in the Apple

Mirror symmetry, Chirality

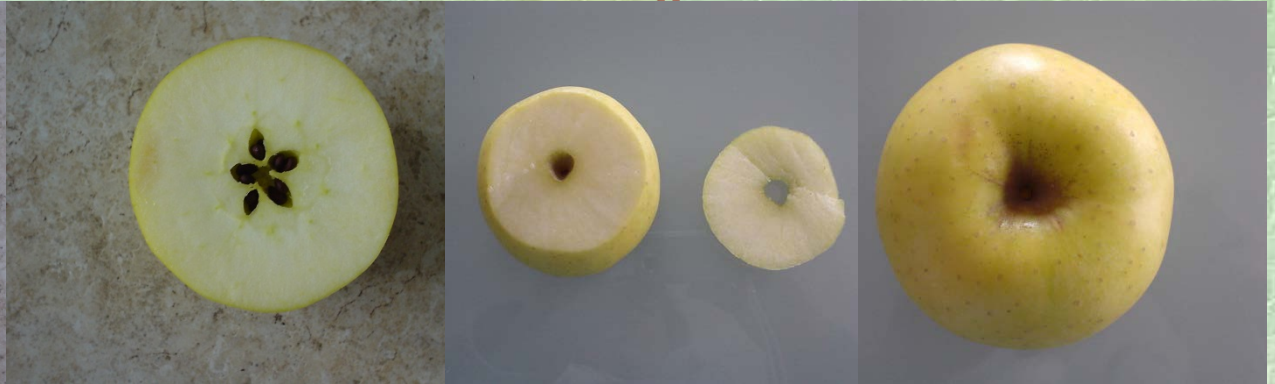
Apple cut into pair of left-handed halves



One left-handed and one right-handed. They will not combine into a whole apple

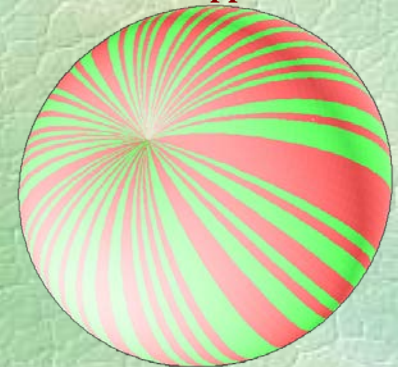


When the apple is dissected in the planes perpendicular to its stern , we obtain sections apple like ones the torus



The apple core, when the apple is dissected in the planes perpendicular to its stern, shows 5.folds aymmetry (D5), all them similars

A ciberapple

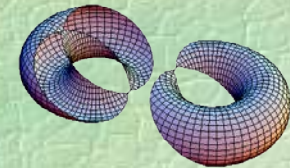
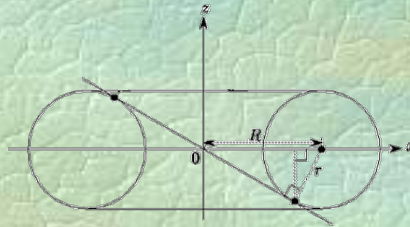


And two very specials numbers: Pi and Phi,

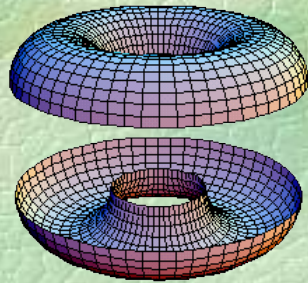
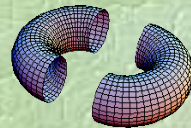
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Sections of banana

Oblique planes

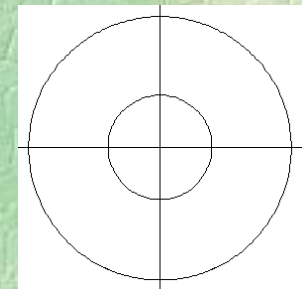


Vertical planes



Un ciberplátano

We Can foun some famous curves so that: Cónicas de Apolonio, óvalos de Cassini, lemniscatas de Bernouilli, hipoddedes de Proclo, spirics de Perseo, cisoides de Diocles, etc.



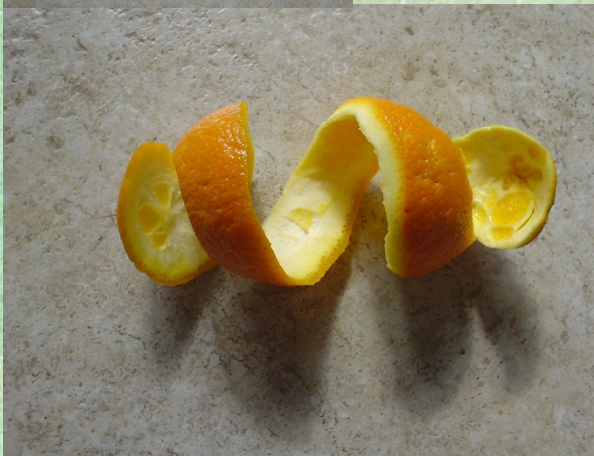
Horizontal planes

Mathematics in the Orange



There are different ways of peeling the oranges. According to the experts, the best one consists of cutting one little piece around the flower and another equal one in the external one diametrically opposed extreme.

In these operations, we have had the occasion of seeing forms that exemplify geometrics objects like: poles, axis, meridians, parallels, spherical zones, segment of two bases, an spherical cap, a segment of a base, a bobbin and wedge, an spherical spiral, an hemisphere, an hemispheric cap



PILE OF FRUITS



CIBERGOLDEN FRUITS



```

▪ to frutasoro :rad1 :rad2 :step :x :y
▪ perspective
▪ cs
▪ setsc [0 0 0]
▪ ht
▪ pu
▪ ; Este es el color del objeto, no el que vamos a ver
▪ setpc [150 200 50]
▪ Torus :rad1 :rad2 :step :x :y
▪ polyview
▪ pd
▪ end
▪ to GetPoint :rad
▪ fd :rad
▪ localmake "pos posxyz
▪ bk :rad
▪ output :pos
▪ end
▪ to Slice :rad1 :rad2 :step
▪ ; dibuja gajos
▪ localmake "i 0
▪ repeat 360/:step ~
▪ [
▪ fd :rad1
▪ down :i
▪ localmake "PointA GetPoint :rad2
▪ down :step
▪ localmake "PointB GetPoint :rad2
▪ up :step
▪ up :i
▪ bk :rad1
▪ rt :step
▪ fd :rad1
▪ down :i
▪ localmake "PointD GetPoint :rad2
▪ down :step
▪ localmake "PointC GetPoint :rad2
▪ up :step
▪ up :i
▪ bk :rad1
▪ lt :step
▪ localmake "PointE posxyz
▪ setposxyz :PointA
▪ pd
▪ polystart
▪ setposxyz :PointB
▪ setposxyz :PointC
▪ setposxyz :PointD
▪ setposxyz :PointA
▪ polyend
▪ pu
▪ setposxyz :PointE
▪ make "i :i + :step
▪ ]
▪ end
▪ to Torus :rad1 :rad2 :step :x :y
▪ ; recubre la superficie del toro con poligonos
▪ make "t :rad2
▪ make "p 0
▪ repeat :y*90/:step [Slice :rad1 :rad2 :step rt :step make "rad2 :rad2-:p make "p
:p+:x]
▪ make "p :p-x
▪ repeat :y*90/:step [Slice :rad1 :rad2 :step lt :step make "rad2 :rad2+:p make "p :p-
:x]
▪ repeat :y*90/:step [make "rad2 :t Slice :rad1 :rad2 :step lt :step make "t :t-p make
"p :p+:x]
▪ end
```