

# PROJECT ARCHIMEDES

Mathematician, Engineer, Inventor,  
Physicist, Astronomer

287 B.C



## EUREKA MOMENT

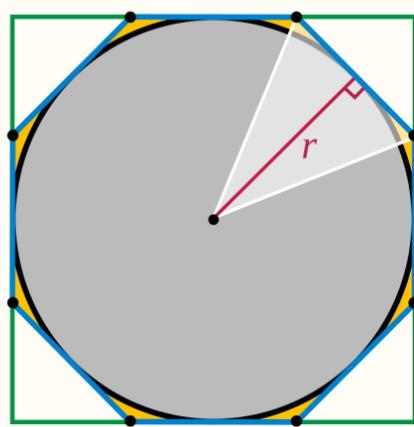
### Archimedes' Principle

A body immersed in a fluid is subject to an upward force equal in magnitude to the weight of fluid it displaces!

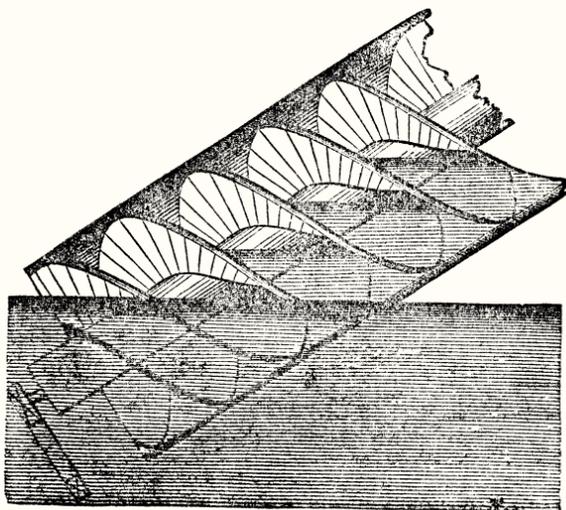
## PI - FINDER

### The first accurate estimation of the value of pi

He drew a regular polygon outside a circle and another inside it; and progressively increased the number of sides of both the polygons till they had 96 sides each. In this way he has calculated the area of a circle and the closest boundaries for Pi..



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## ARCHIMEDES' SCREW

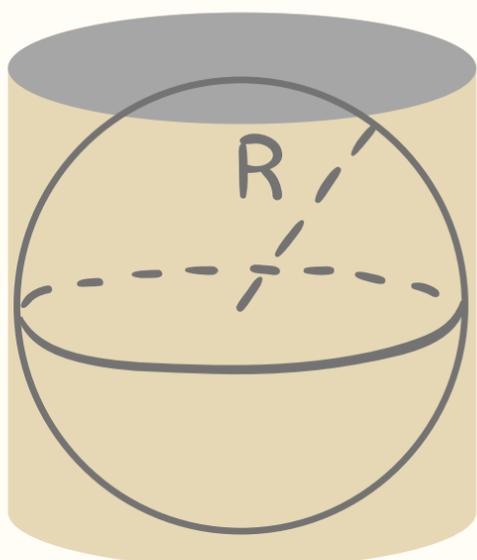
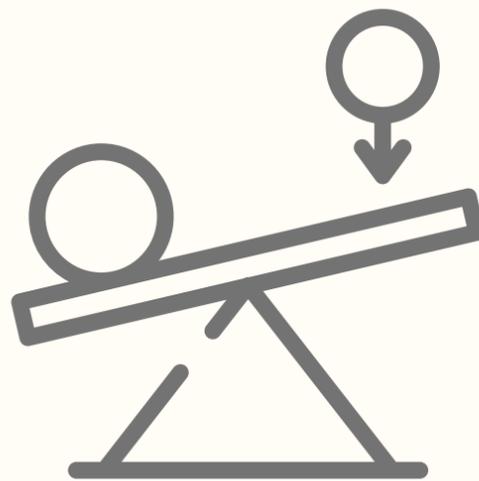
### Upwards Movement

He has invented a device to lift water up from a well became known as the Archimedes Screw, and is still in use in many places today.

## ARCHIMEDES' LEVER

"Give me a place to stand on, and I will move the Earth!"

A small force applied at the end of a long lever can create enough torque to move heavy loads on the other end of the lever. In his book *On the Equilibrium of Planes*, he proved the law of the lever using geometric reasoning.,



## SPHERE ON A CYLINDER

### The mark on his tomb

He find the Surface area and y-the Volume formulas of a sphere. And he proudly proved that, when a sphere and a cylinder have the same height and diameter, the sphere has 2/3 of the volume and surface area of the cylinder.

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## FUTURE SOLAR PANELS

### Giant Mirrors

A spectacular machine credited to Archimedes is the heat ray or the death ray. It is said to have used mirrors acting collectively as a parabolic reflector to burn ships attacking Syracuse.



## DO NOT DISTURB MY CIRCLES

### Last Words

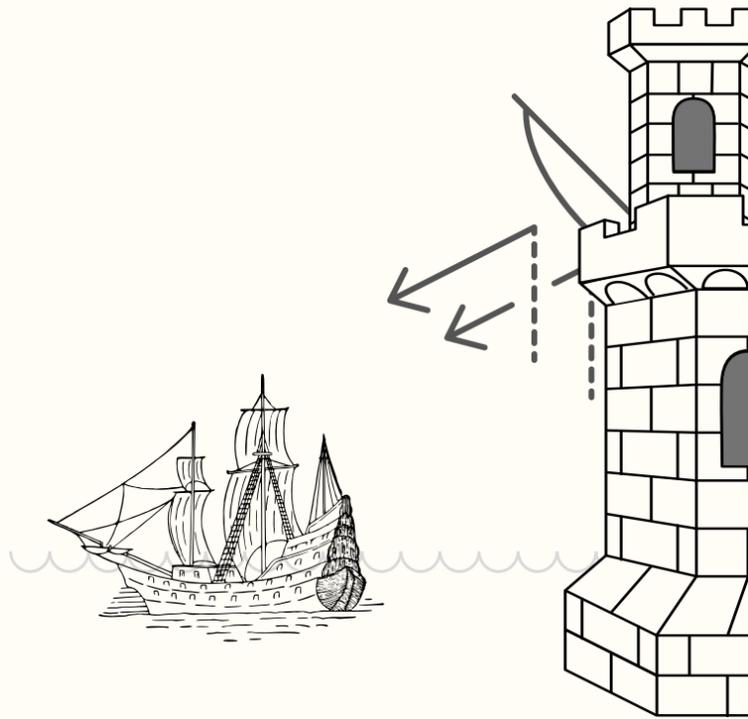
The last words attributed to Archimedes are "Do not disturb my circles", a reference to the circles in the mathematical drawing that he was supposedly studying when disturbed by the Roman soldier.



## WAR MACHINES

### Science Wars

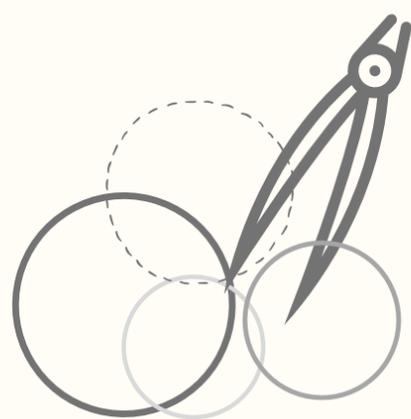
When the Romans attacked Syracuse, Archimedes invented weapons to defend the city like the Claw of Archimedes and giant catapults.



## ARCHIMEDIAN SOLIDS

### 13 GEOMETRIC SOLIDS

In geometry, an Archimedean solid is a convex polyhedron with these properties;  
Each face has to be a regular polygon  
All the corners of the shape look the same.  
The shape is neither a platonic solid, nor a prism, nor an antiprism.



**"THE ONLY WAY TO LEARN IT IS TO DO IT."**

## ARCHIMEDES

212 B.C

