

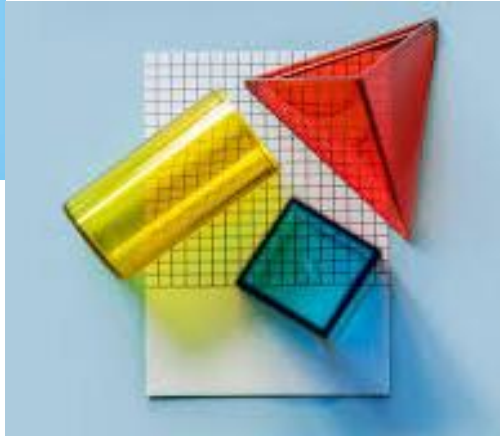


Project code:
2019-1-EL01-KA201-062914

Erasmus+ Call: 2019 - KA2 -



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2nd
Primary School
of Chios



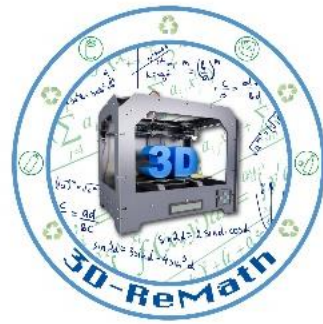
3D printing technology aims students understanding maths and recycling procedure

02_3rd Curricula of Maths: Stereometry

Perimeter and Area of 2D shapes

Outline

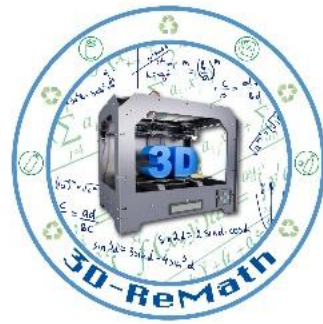
- Perimeter and Area
- Videos



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2D shapes

Basic Characteristics

Length (**L**)

Width (**W**)

Height (**H**)

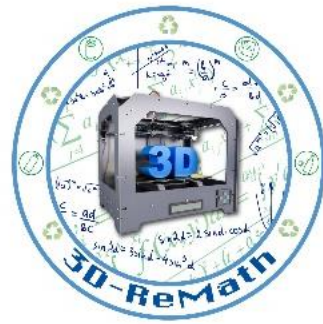


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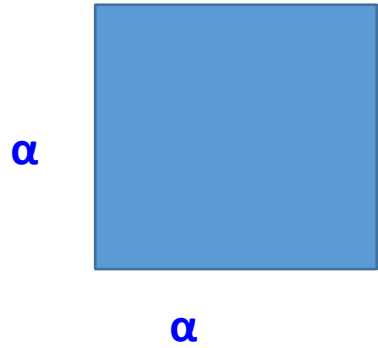
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2D Shapes



Square



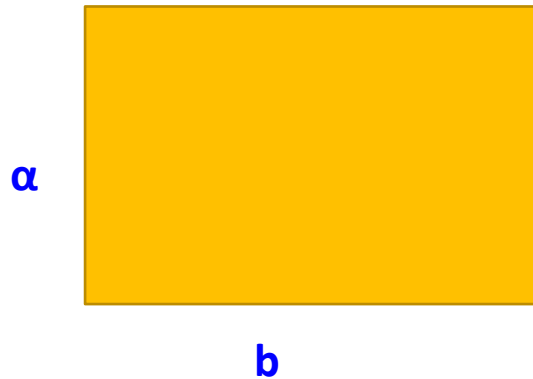
Perimeter

$$P = \alpha + \alpha + \alpha + \alpha = 4\alpha$$

Area

$$S = \alpha * \alpha = \alpha^2$$

Rectangular



Perimeter

$$P = \alpha + b + \alpha + b = 2\alpha + 2b$$

Area

$$S = \alpha * b$$



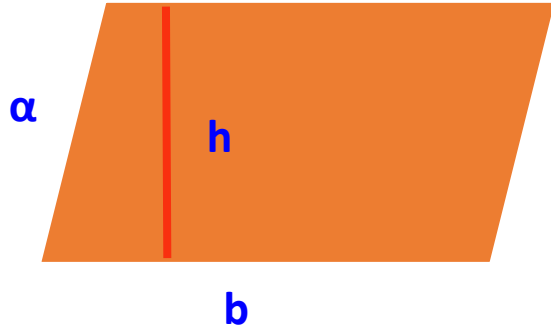
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2D Shapes

Parallelogram

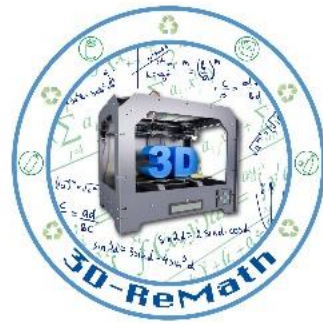


Perimeter

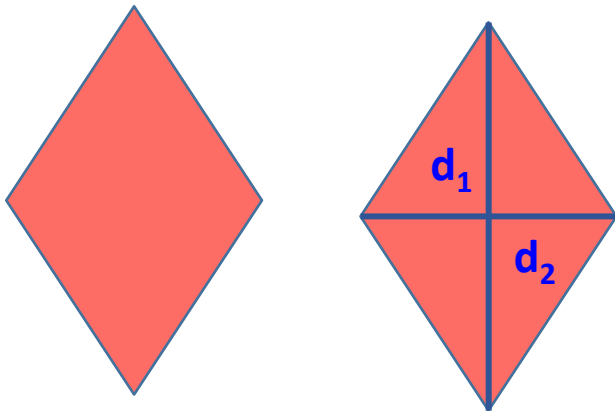
$$P = \alpha + b + \alpha + b = 2\alpha + 2b$$

Area

$$S = b * h$$



Rumbus



Perimeter

$$P = \alpha + \alpha + \alpha + \alpha = 4\alpha$$

Area

$$S = \frac{1}{2} (d_1 * d_2)$$

d1 and d2 are diagonals



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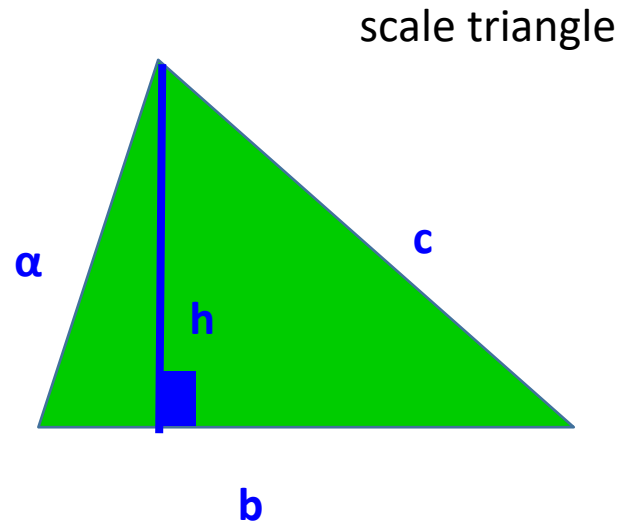
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Ι Δ Ρ Υ Μ Α
Κ Ρ Α Τ Ι Κ Ω Ν
Υ Π Ο Τ Ρ Ο Φ Ι Ω Ν
IKY

2D Shapes

Triangle



Sides of triangle: α , b , c

Height of triangle: h

Unequal angles

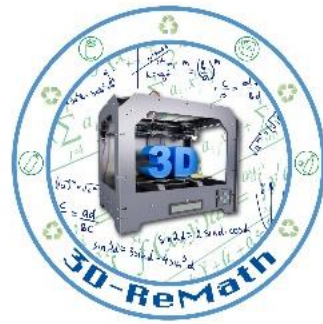
Unequal sides

Perimeter

$$P = \alpha + b + c$$

Area

$$S = \frac{1}{2} (b * h)$$



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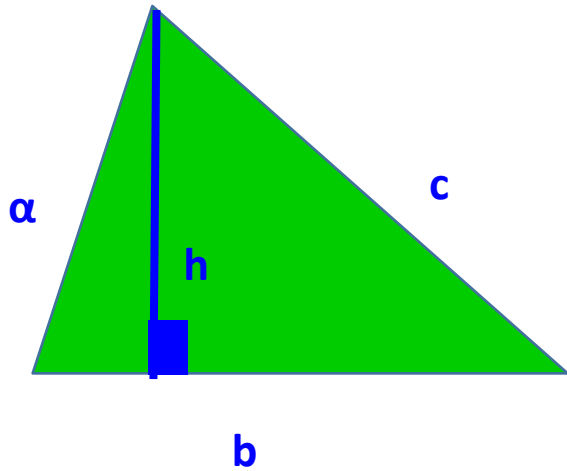
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2D Shapes

Triangle

scale triangle



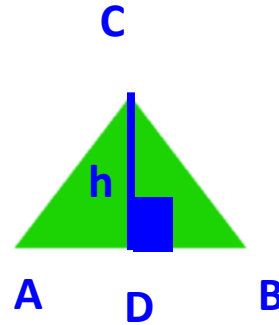
Sides of triangle: α , b , c

Height of triangle: h

Unequal angles

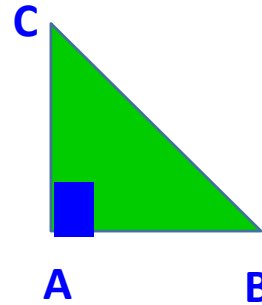
Unequal sides

Acute triangle



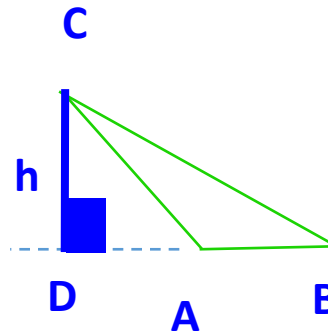
$$S = \frac{1}{2} (b * h) = \frac{1}{2} [(AB) * (CD)]$$

right triangle



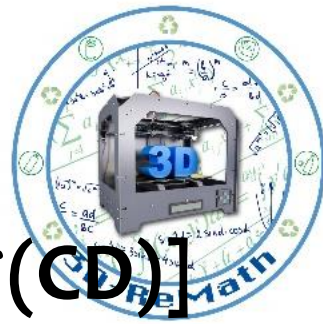
$$S = \frac{1}{2} (b * h) = \frac{1}{2} [(AB) * (AC)]$$

obtuse triangle



Area

$$S = \frac{1}{2} (b * h) = \frac{1}{2} [(AB) * (CD)]$$



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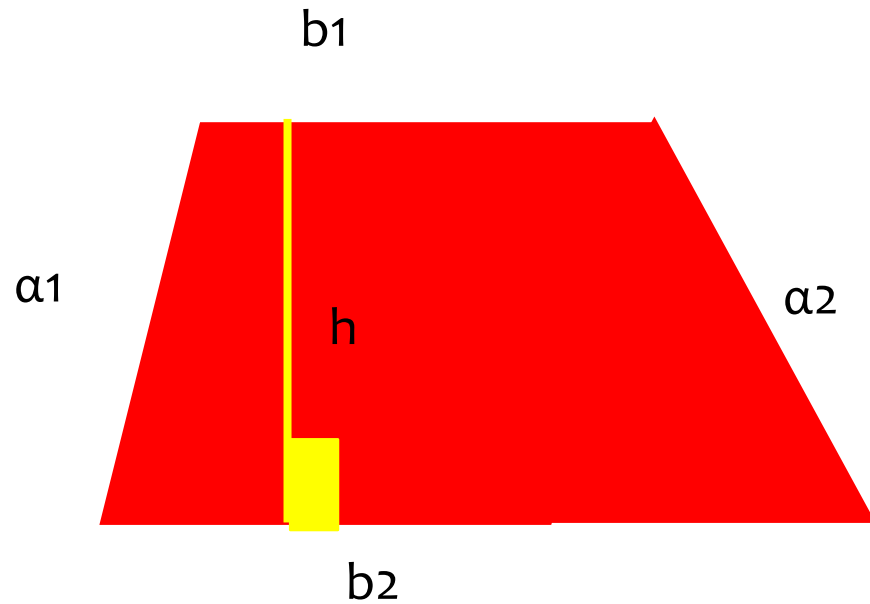
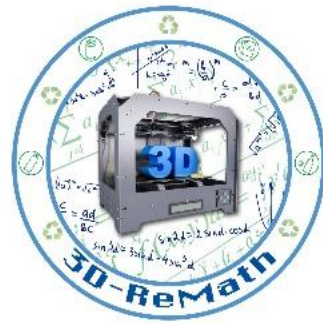
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2D Shapes

Pupils 6-8

Trapezium



Perimeter

$$P = a_1 + a_2 + b_1 + b_2$$

Area

$$S = \frac{1}{2} [(b_1 + b_2) * h]$$



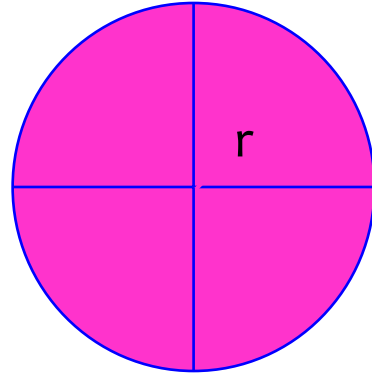
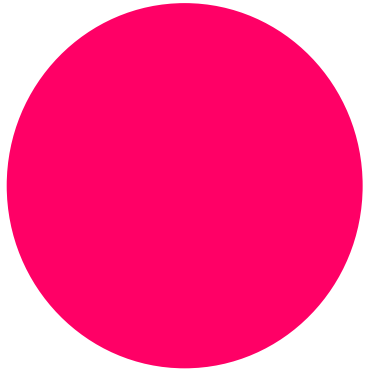
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2D Shapes

Circle

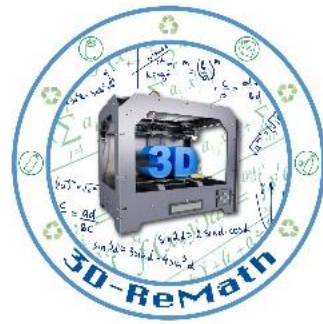


Perimeter

$$P=2*\pi*r$$

Area

$$S=\pi*r^2$$



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home / math / area calculator

Area Calculator

Rectangle

Result

$$\begin{aligned} \text{Area} &= l \times w \\ &= 30 \times 20 \\ &= \mathbf{600 \text{ meters}^2} \end{aligned}$$

[Show result in other units](#)

Length (l) meters ▾

Width (w) meters ▾

Calculate ▶ Clear



Triangle

Edge 1 (a) meters ▾

Edge 2 (b) meters ▾

Edge 3 (c) meters ▾

Calculate ▶ Clear



Use the [Triangle Calculator](#) to determine all three edges of the triangle given other parameters.

Area Calculator

Use the following link
<https://www.calculator.net/>

M
S
P
V
R
G



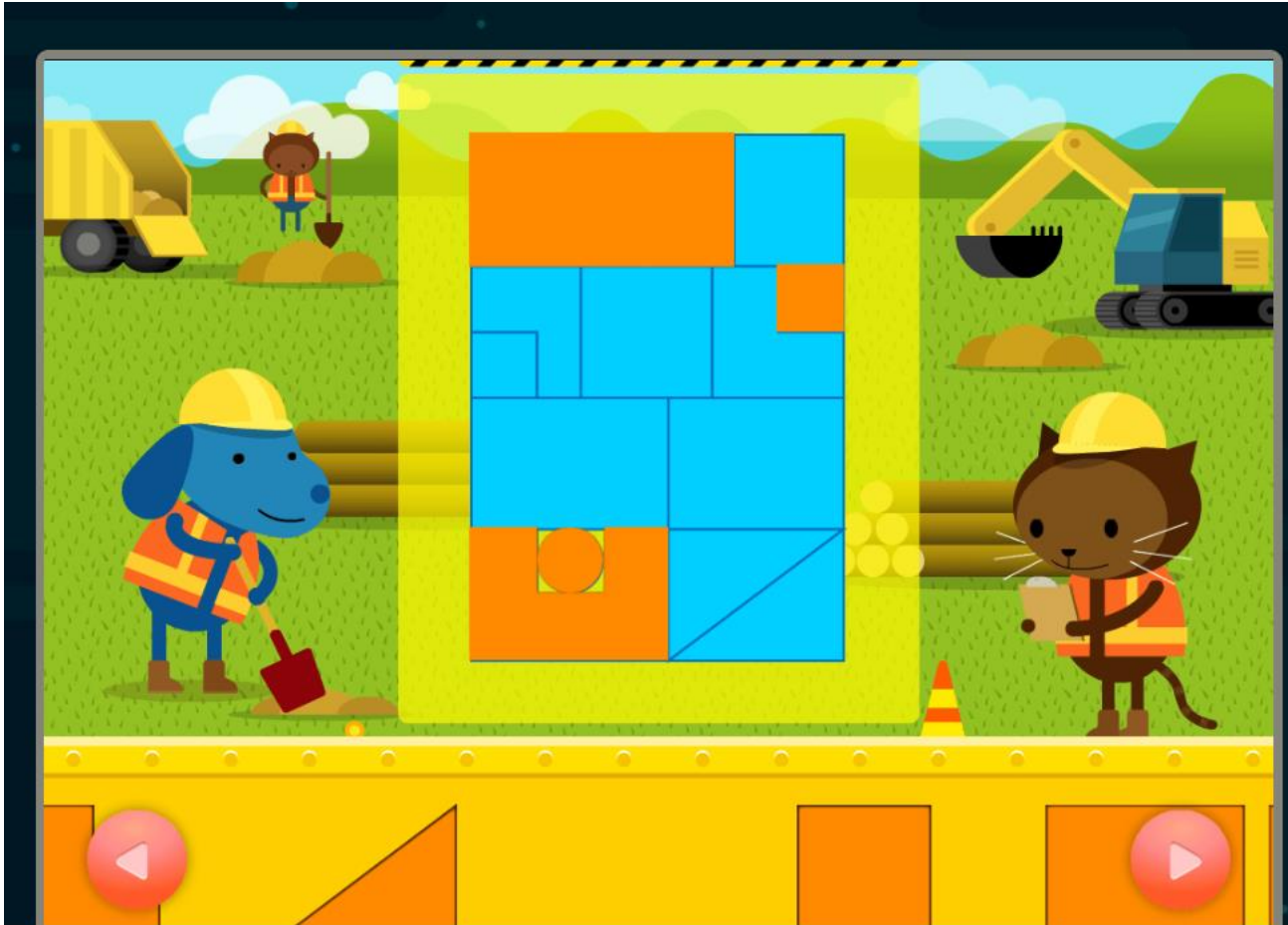
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Drag and drop_then find m^2 of the area

https://www.abcya.com/games/shapes_geometry_game

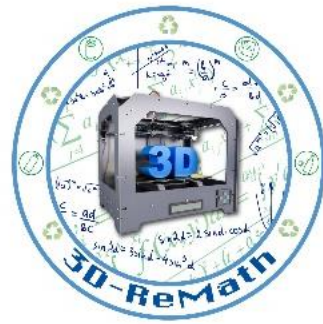


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Switch shapes to get rows or columns



toytheater.com/shape-fall/

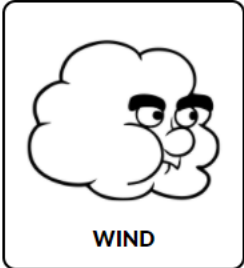
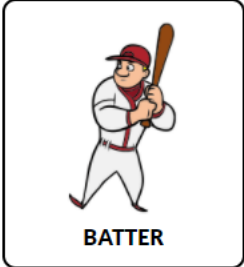
Εφαρμογές

Kindergarten Math Games



High Score: 0

Score: 1710



Orange pentagon	Green hexagon	Orange pentagon	Green hexagon	Blue square	Yellow circle	Orange pentagon	Orange pentagon	Blue square
Red triangle	Blue square	Blue square	Yellow circle	Orange pentagon	Yellow circle	Green hexagon	Green hexagon	Yellow circle
Blue square	Red triangle	Orange pentagon	Yellow circle	Green hexagon	Red triangle	Red triangle	Orange pentagon	Red triangle
Green hexagon	Yellow circle	Orange pentagon	Red triangle	Orange pentagon	Blue square	Yellow circle	Red triangle	Blue square
Yellow circle	Green hexagon	Blue square	Green hexagon	Red triangle	Yellow circle	Blue square	Orange pentagon	Red triangle
Orange pentagon	Blue square	Yellow circle	Orange pentagon	Yellow circle	Blue square	Orange pentagon	Red triangle	Orange pentagon
Yellow circle	Red triangle	Green hexagon	Red triangle	Orange pentagon	Yellow circle	Red triangle	Orange pentagon	Yellow circle

<https://toytheater.com/shape-fall/>

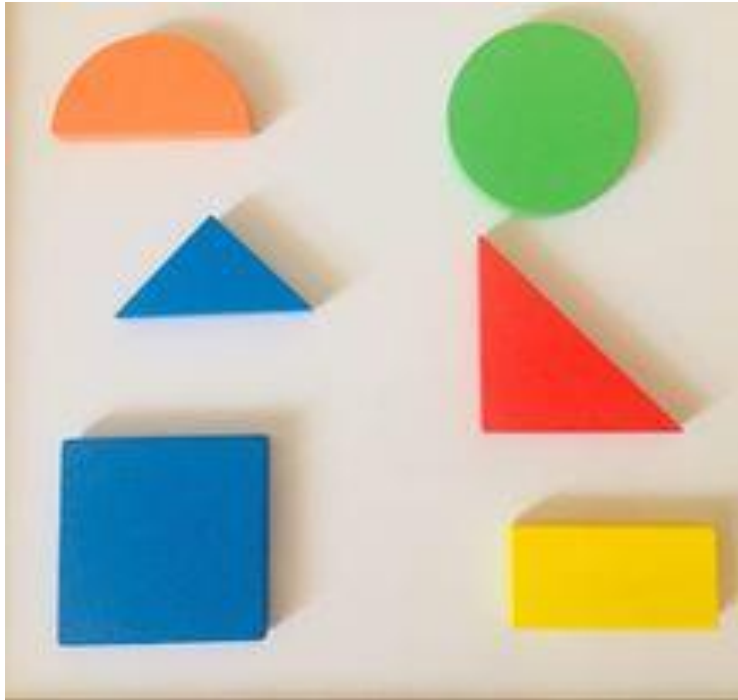
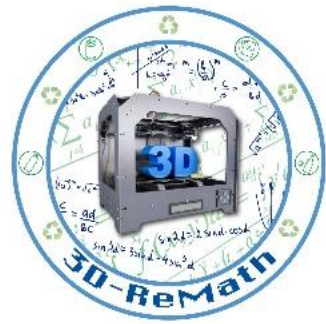


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Video



- <https://www.youtube.com/watch?v=gtMKsFXjLHw>
(11-14 who already had been taught the Theorem of Pythagoras)
- <https://www.youtube.com/watch?v=JnLDmw3bbuw>



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