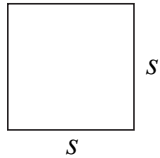
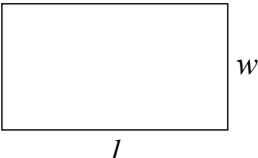
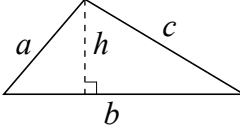
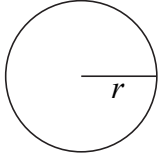
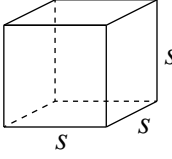
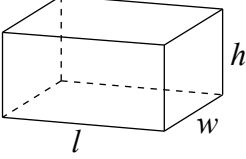
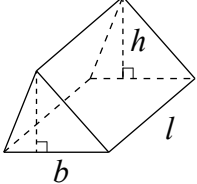
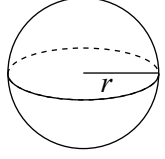


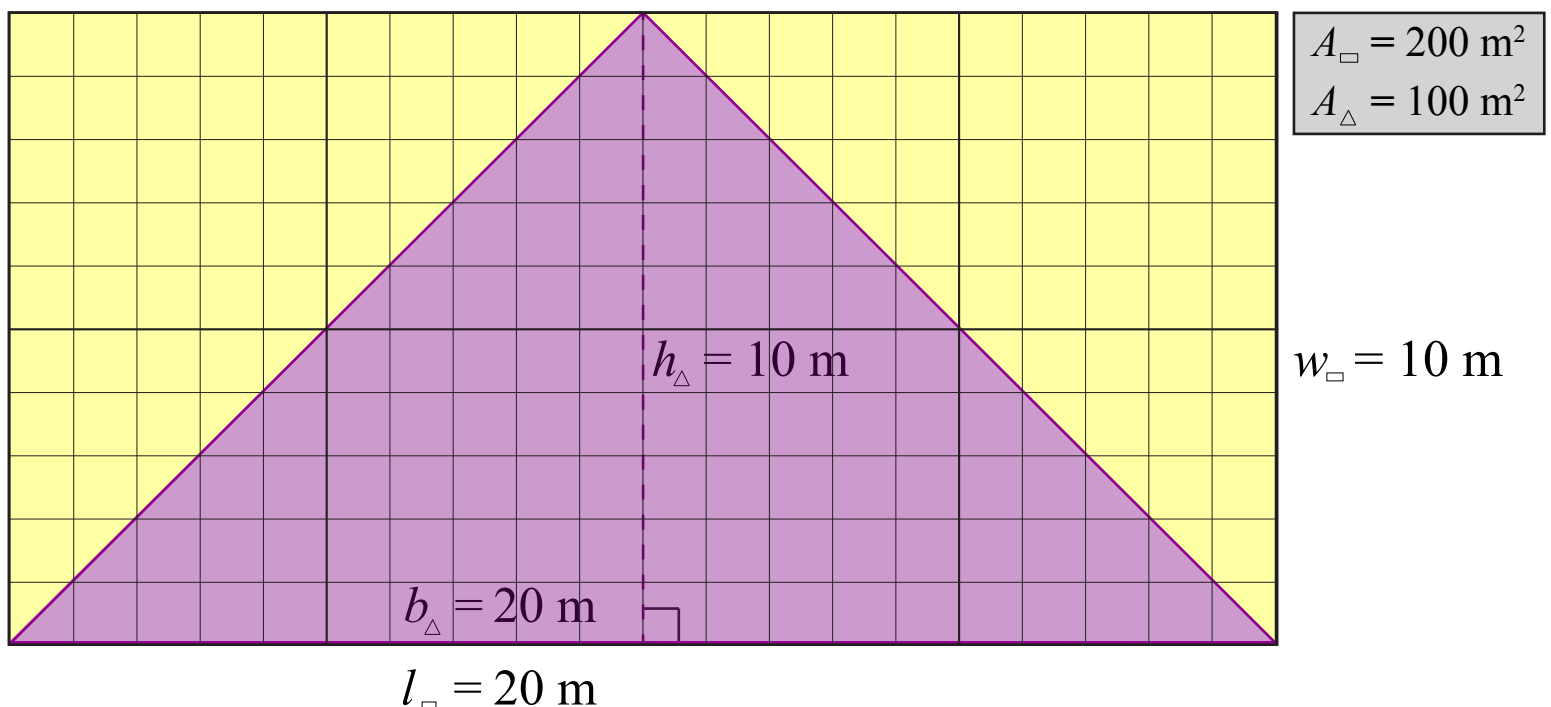
# Geometry formulae<sup>†</sup>

	Square	Rectangle	Triangle	Circle
Shape (Perimeter and area)				
Perimeter [m]	$P = s + s + s + s$ [m] or $P = 4s$ [m]	$P = l + w + l + w$ [m] or $P = 2l + 2w$ [m]	$P = a + b + c$ [m]	$C = 2\pi r$ [m]  $C = \text{circumference}$ $\pi = \text{pi} \approx \frac{22}{7}$ or 3.14... $r = \text{radius}$
Area [m <sup>2</sup> ]	$A = s \times s$ [m <sup>2</sup> ]	$A = l \times w$ [m <sup>2</sup> ]	$A = \frac{1}{2} \times b \times h$ [m <sup>2</sup> ]	$A = \pi r^2$ [m <sup>2</sup> ]
Volume [m <sup>3</sup> ]	$V = s \times s \times s$ [m <sup>3</sup> ]	$V = l \times w \times h$ [m <sup>3</sup> ]	$V = \frac{1}{2} \times b \times h \times l$ [m <sup>3</sup> ]	$V = \frac{4}{3} \pi r^3$ [m <sup>3</sup> ]
Shape (Volume)				
	<b>Cube</b>	<b>Rectangular prism</b>	<b>Triangular prism</b>	<b>Sphere</b>

## Arithmetic operations on units

Operation	Example (correct)	Example (incorrect)	Notes
Addition/subtraction	$2 \text{ m} + 3 \text{ m} = 5 \text{ m}$	$2 \text{ m} + 3 \text{ m} \neq 5 \text{ m}^2$	Units do not change
Multiplication	$2 \text{ m} \times 3 \text{ m} = 6 \text{ m}^2$	$2 \text{ m} \times 3 \text{ m} \neq 6 \text{ m}$	Units change (e.g.: m <sup>2</sup> , m <sup>3</sup> )

Area of a rectangle and an inscribed triangle. Geometric/visual proof of the triangle area formula.



<sup>†</sup>Geometry: a branch of mathematics concerned with properties of space such as distance, shape, & size.  
 From the Greek: γεωμετρία (geōmetría) “Earth/land measurement”  
 γῆ (gê) “Earth, land”, μέτρον (métron) “measure”