Pyramids

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| Great Pyramids of Egypt | |
| When we think of pyramids we think of the **Great Pyramids of Egypt**.  They are actually ***Square Pyramids***, because their base is a Square. | Pyramid Outlined |

Parts of a Pyramid

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| Pyramid Base and Apex |
| A pyramid is made by connecting a **base** to an **apex** |

Types of Pyramids

There are many types of Pyramids, and they are named after the shape of their base.

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|  | Pyramid | Base |  |
| **Triangular Pyramid:** | Triangular Pyramid | Triangle | [Details >>](http://www.mathsisfun.com/geometry/triangular-pyramid.html) |
| **Square Pyramid:** | Square Pyramid | Square | [Details >>](http://www.mathsisfun.com/geometry/square-pyramid.html) |
| **Pentagonal Pyramid:** | Pentagonal Pyramid | Pentagon | [Details >>](http://www.mathsisfun.com/geometry/pentagonal-pyramid.html) |
| ***... and so on ...*** | | | |

Right vs Oblique Pyramid

This tells you where the top (apex) of the pyramid is. If the apex is directly above the center of the base, then it is a Right Pyramid, otherwise it is an Oblique Pyramid.

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| Right Pyramid | Oblique Pyramid |
| **Right Pyramid** | **Oblique Pyramid** |

Regular vs Irregular Pyramid

This tells us about the **shape of the base**. If the base is a [regular polygon](http://www.mathsisfun.com/geometry/regular-polygons.html), then it is a Regular Pyramid, otherwise it is an Irregular Pyramid.

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| Regular Pyramid | Irregular Pyramid |
| **Regular Pyramid** | **Irregular Pyramid** |
| Square | Irregular Ploygon |
| **Base is Regular** | **Base is Irregular** |

Area and Volume

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| Pyramid Perimeter and Height |  | The Volume of a Pyramid   * 1/3 × [Base Area] × Height   The Surface Area of a Pyramid  When all side faces are the same:   * [Base Area] + 1/2 × Perimeter × [Slant Length]   When side faces are different:   * [Base Area] + [Lateral Area] |

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|  | Notes On Surface Area  The Surface Area has two parts: the area of the base (the ***Base Area***), and the area of the side faces (the ***Lateral Area***).  For ***Base Area*** :  It depends on the shape, there are different formulas for triangle, square, etc. See [Area](http://www.mathsisfun.com/area.html) for formulas, or our [Area Calculation Tool](http://www.mathsisfun.com/area-calculation-tool.html)  For ***Lateral Area*** :  When all the side faces are the same:   * Just multiply the perimeter by the "slant length" and divide by 2. This is because the side faces are always triangles and the triangle formula is*"base times height divided by 2"*   But if the side faces are different (such as an "irregular" pyramid) then add up the area of each triangular shape to find the total lateral area. |