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Intersect (Boolean)

Reference

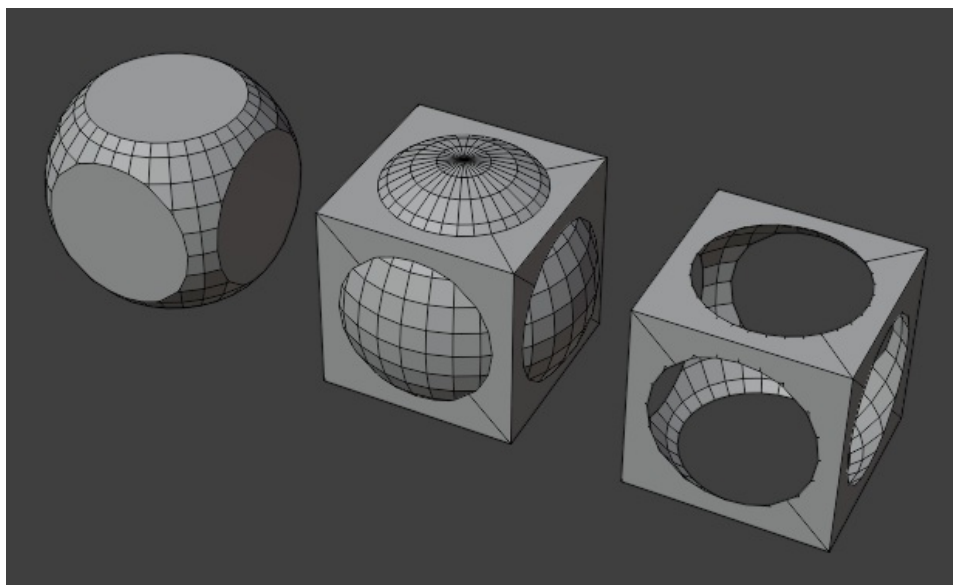
Mode:

Edit Mode

Menu:

Face ▶ Intersect (Boolean)

Performs Boolean operations between the selected and unselected geometry.



Selecting a sphere and performing an Intersection, Union, and Difference with a cube.

Tip

Hide geometry by pressing **H** to exclude it from the operation, then **Alt + H** afterwards to unhide it again.

See also

The [Boolean Modifier](#) can perform these same operations non-destructively between different mesh objects.

The [Adjust Last Operation](#) panel offers the following options:

Boolean Operation

Intersect:

Only keep the volume that's inside both the selected and the unselected geometry.

Union:

Remove the interior faces between the selected and the unselected geometry.

Difference:

Cut the selected geometry out of the unselected geometry, then remove the selected geometry.

Solver

Algorithm used to perform the Boolean operation.

Fast:

Uses a mathematically simple solver which offers the best performance; however, this solver lacks support for overlapping geometry.

Merge Threshold

Tolerance for close faces to be considered touching. It may be useful to increase this when some intersections aren't detected that should be and when extra geometry is being created because edges aren't detected as overlapping.

Warning

A threshold approaching the size of faces may cause very slow calculation. In general, keep this value small.

Exact:

Uses a mathematically complex solver which offers the best results and has full support for overlapping geometry; however, this solver is much slower than the *Fast* solver.

Swap

When using *Difference*, cut the unselected geometry out of the selected geometry instead of the other way around.

Self Intersection

Correctly handle self-intersection in the participating geometry, at the cost of performance.

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[Intersect \(Knife\)](#)

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