1. A [**torus**](https://en.wikipedia.org/wiki/Torus)**interconnect** is a switch-less [network topology](https://en.wikipedia.org/wiki/Network_topology) for connecting processing nodes in a [parallel computer](https://en.wikipedia.org/wiki/Parallel_computer) system. We can generalize the rule from the figures above. Torus interconnect is a switch-less topology that can be seen as a [mesh interconnect](https://en.wikipedia.org/wiki/Mesh_networking) with nodes arranged in a [rectilinear](https://en.wikipedia.org/wiki/Rectilinear_grid) array of N = 2, 3, or more dimensions, with processors connected to their [nearest neighbors](https://en.wikipedia.org/wiki/Nearest_neighbor_graph), and corresponding processors on opposite edges of the array connected. [In this lattice](https://en.wikipedia.org/wiki/Torus), each node has 2N connections. This topology got the name from the fact that the lattice formed in this way is topologically homogeneous to an [N-dimensional](https://en.wikipedia.org/wiki/N-dimensional) [torus](https://en.wikipedia.org/wiki/Torus).
2. h[ypercube](https://en.wikipedia.org/wiki/Hypercube) networks are a type of [network topology](https://en.wikipedia.org/wiki/Network_topology) used to connect multiple [processors](https://en.wikipedia.org/wiki/Processors) with memory modules and accurately route data. Hypercube networks consist of 2m nodes. These nodes form the vertices of squares to create an internetwork connection. A hypercube is basically a multidimensional [mesh network](https://en.wikipedia.org/wiki/Mesh_networking) with two nodes in each dimension. Due to similarity, such topologies are usually grouped into a k-ary d-dimensional mesh topology family where d represents the number of dimensions and k represents the number of nodes in each dimension.