

0.1 Limit of a sequence

A sequence converges to a limit if

Can converge to a number ($1/x$)

Can converge to $+/-$ infinity (x)

Otherwise, does not converge ($1, -1, 1, -1, \dots$)

Superior and inferior limits

A bounded increasing sequence converges to least upper bound

0.1.1 Identifying the limit of a sequence

Direct comparison test

Root test