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## Galois is not transitive

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The phrase “Galois is not transitive” is a mnemonic for the statement “The relation ‘is a Galois extension of’ is not transitive.” This means that, if  $K/F$  and  $L/K$  are <http://planetmath.org/GaloisExtension> Galois extensions, it does not follow that  $L/F$  is Galois. This follows immediately from the fact that normal is not transitive. See example of normal extension for more details.