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corollary to the compositum of a Galois extension and another extension is Galois

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**Corollary 1.** *Let  $E/K$  be a Galois extension of fields, let  $F/K$  be an arbitrary extension and assume that  $E$  and  $F$  are both subfields of some other larger field  $T$ . The compositum of  $E$  and  $F$  is here denoted by  $EF$ . Then  $[EF : F] = [E : E \cap F]$ .*

This follows immediately from item (2) of the theorem.