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total ring of fractions

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For a commutative ring R having regular elements, we may form $T = S^{-1}R$, the *total ring of fractions* (quotients) of R , as the localization of R at S , where S is the set of all non-zero-divisors of R . Then, T can be regarded as an extension ring of R (similarly as the field of fractions of an integral domain is an extension ring). T has the non-zero unity 1.