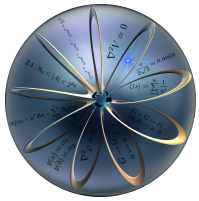

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## contracted ideal

| | |
|---|---|
| Canonical name | ContractedIdeal |
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Let $f : A \to B$ be a ring homomorphism. Let $\mathfrak{b}$ be an ideal in $B$. Then it is easy to show that the inverse image of $\mathfrak{b}$, that is $f^{-1}(\mathfrak{b})$, is an ideal in $A$, and we call it a *contracted ideal*. A common notation for the contracted ideal in this case is $\mathfrak{b}^c$.