Factsheet: Hyperbolic identities

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Summary

A list of hyperbolic trig identities.

*These are common definitions and identities for hyperbolic functions. For derivatives and antiderivatives, please see* [*Factsheet: List of derivatives*](f-commonderivatives.qmd) *and* [*Factsheet: List of integrals*](f-commonintegrals.qmd) *respectively.*

## Definitions of hyperbolic functions

For all real numbers :

## Hyperbolic identities

**Pythagorean formulas**

For all real numbers :

**Sum and difference formulas**

For all real numbers :

**Double angle formulas**

For all real numbers :

## Definitions of inverse hyperbolic functions

| function | logarithmic definition | validity |
| --- | --- | --- |
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## Version history

v1.0: created in 08/25 by tdhc.

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