



## PRODUCT MANIFOLDS

### Why

If we have two manifolds, is there product a manifold?

### Result

The answer is yes.

**Proposition 1.** *Let  $X$  and  $Y$  be manifolds. Then  $X \times Y$  is a manifold and  $\dim X \times Y = \dim X + \dim Y$ .<sup>1</sup>*

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<sup>1</sup>Future editions will include an account.



