

## 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>&</sup>lt;sup>1</sup>Future editions will include an account.

