

Re: Cantor's definition of set

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On Tue, 30 Oct 2007 12:16:07 -0700, MoeBlee <jazzmobe@xxxxxxxxxxxxx> wrote:

Not the definition of ordered pair, in the sense that

$$\begin{aligned} \{\{x\} \{x y\}\} &= \\ \{\{x\} \{y x\}\} &= \\ \{\{x y\} \{x\}\} &= \\ \{\{y x\} \{x\}\}. & \end{aligned}$$

Of course, though, we do stipulate that printed formulas are read from left to right. But we could as well stipulate the opposite.

Moreover, we can define the notions of /First_Coordinate/ and /Second_Coordinate/, then we can show for any ordered pairs P₁ and P₂, that

$$P_1 = P_2 \leftrightarrow \text{First_Coordinate}(P_1) = \text{First_Coordinate}(P_2) \ \& \ \text{Second_Coordinate}(P_1) = \text{Second_Coordinate}(P_2).$$

And this equivalence is independent of any direction of reading. (We may for example decide to consider the element in the singleton set {x} to be the /first coordinate/ of the pair {{x}, {x, y}}.)

F.

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