

# Re: ordered pairs/n-tuples as collections of sets

---

*Source:* <http://sci.tech-archive.net/Archive/sci.math/2005-07/msg00301.html>

---

- *From:* "The Qurqirish Dragon" <[qurqirishd@xxxxxxx](mailto:qurqirishd@xxxxxxx)>
  - *Date:* 3 Jul 2005 08:51:51 -0700
- 

The best I can see is to do this:

Define  $S$ =the set of all 1-element sets.

i.e.  $S=\{ \{x\}:x \text{ is an element of } X \}$ , where  $X$  is the system containing the values of your coordinates (e.g. if you are looking at Euclidean coordinates for the plane,  $X=R$ )

Next, define  $T=(a,b)=\{ \{a\}, \{ \{b\} \} \}$ . Note that this removes the problem of  $a=b$ .

Then  $T_1=T \text{ intersect } S$ , and  $T_2=T-S$

If you need to keep the same definition of  $T$ , then you can still use this definition, but not that you need to interpret the empty set as meaning "the same as  $T_1$ ", so if, for example:

$T=(a,a)$ , then by definition  $T=\{ \{a\} \}$

so  $T_1=\{a\}$  and  $T_2=\{ \}$  (using my definitions)

.

---

• ***References:***

- ◆ ***ordered pairs/n-tuples as collections of sets***

◇ *From:* Elotemuygrande

- Prev by Date: ***Re: Cantor and the binary tree***
- Next by Date: ***Re: Cantor and the binary tree***
- Previous by thread: ***Re: ordered pairs/n-tuples as collections of sets***
- Next by thread: ***Re: ordered pairs/n-tuples as collections of sets***
- Index(es):
  - ◆ ***Date***
  - ◆ ***Thread***