FLEA MARKET

Five shop owners sell items at the local Flea Market (one item sold is ties).Last Saturday the five shopkeepers sold different amounts of items (one sold 7 items).
From the clues provided below can you determine which shopkeeper sold which item and how many of each item was sold?

CLUES:

Tom sold one-half as many items as Jane.
Bill sold more ties than at least 2 others.
Mary sold at least 3 times as many items as Kelly.
More figures were sold than animals, and more Belts (which was neither 12 or 18 in quantity) than ties, and less Dresses than Animals.

FLEA MARKET	6	7	12	14	18	ties	belts	dresses	figures	animals
Bill										
jane										
Kelly										
Mary										
Tom										
ties										
belts										
dresses										
figures										
animals										

(SEE NEXT PAGES FOR DETAILED SOLUTION)

Bill-12-Ties.
Jane-14-Belts.
Kelly-6-Dresses.
Mary-18 Figures .
Tom-7-Stuffed animals.

- This first clue "*Tom sold one-half as many items as Jane.*."

  Requires a bit of math. We are given the number of items involved (**6, 7, 12, 14, or 18**), therefore we need to determine what is possible with this set of numbers.
  Since **"Tom sold 1/2 as many...."**, lets assume Jane sold 18, than Tom sold 9 (not possible), but
  if Jane sold 14,(then Tom sold 7), and if Jane sold 12, (then Tom sold 6), which are good possibles
  Lets make the following eliminations for these two person's rows as follows: **Jane - 6, 7, 18.** and **Tom - 12, 14, and 18.**

- This next clue : "*Bill sold more ties than at least 2 others.*"
  Here we are given one solution, (**Bill-Ties**), which allows us to make these eliminations in **Bill**'s row: **Bill- Belts, Dresses, Figures, and Animals.**

- Followed by eliminations in the **Ties** Column: **Ties - Jane, Kelly, Mary , and Tom.**
  The last part of the clue(**"...more ties than at least 2 others.")** Allows us to make the additional eliminations in Bill's and Ties rows as follows: **Bill - 6, 7.   Ties - 6, 7.**

- The next clue states : "*Mary sold at least 3 times as many items as Kelly*."
  We need to use our math skills once again, and realize that Mary must have sold 18 items(because 18 divided by 3 = 6, which is the only mathematical solution that fits within this given set of numbers), therefore we now have two solutions:
  Kelly - 6 , and **Mary - 18**, which allows us to make these eliminations in the following rows:
  Kelly - 7, 12, 14, 18 and **Mary - 6, 7, 12, and 14.** Which leads to additional logical eliminations:
  Tom - 6 , (which leads to the solutions **Tom-7** (and consequently) **Jane-14**), which leads to further eliminations:
  Jane - 12, and **Bill - 14** (which leads to the solution **Bill-12** (and

consequently) **_Ties-12_**), which leads to the eliminations:
Ties - 14, 18 and (for the Column **12**):
12 - Belts, Dresses, Figures, and Animals.

- This final clue is "**_More figures were sold than animals_** ,
and **_more Belts (which was neither 12 or 18 in quantity) than_**
ties, and **_less Dresses than Animals_** ."
Lets take each part separately, beginning with : **_"More figures_**
were sold than animals....", which
leads to two eliminations: **_Figures - 6,_** and **_Animals-18._**

Next we have **_"... more Belts (which was neither 12 or 18 in_**
quantity) than Ties..."

Which means if there were more belts than ties and (since **Ties**
=12_), and the Belts do not equal 12, or 18, then Belts must equal_
14, so make the following eliminations: **_Belts - 6, 7, 18_** _and (for_
column **14**_)_ **_14- Dresses, Figures, Animals_** _, which leads to the_
solution **_Jane-14-Belts_**
and the eliminations **_Jane - Dresses, Figures, and Animals_** _, as_
well as (for Column **Belts**_)_
Belts - Kelly, Mary, and Tom _, and_ **_Kelly - Figures_**_._
Our final part of the clue is **_".....less dresses than Animals..."_**
For this to be true it means we have to eliminate **_Dress -_**
_18_ _and_ **_Animals - 6._**
(Which in turn leads to the solutions) :
Figures - 18 _,_ **_Dresses - 6_** _and_ **_Animals - 7._**

From which it follows:
Kelly is the one who sold 6 dresses.
Mary is the one who sold 18 Figures _and,_
Tom is the one who sold 7 stuffed Animals.

- _Congratulations! Puzzle solved. To summarize:_
Bill-12-Ties.
Jane-14-Belts.
Kelly-6-Dresses.
Mary-18 Figures .
Tom-7-Stuffed animals.