

**Answer on Question #48408 – Math - Algebra**

shelly collected 25 soda bottles. jenna collected 5 more bottles than sarah. cindy collected less bottles than shelly. to find out how many bottles jenna collected, you need to know the number of bottles collected by: shelly, cindy, sarah

**Solution.**

**Let  $x$  be the numbers of bottles collected by Shelly,  $y$  -collected by Jenna,  $z$  - collected by Cindy and  $t$  - collected by Sarah. Then the following system holds true**

$$\begin{cases} x = 25, \\ y = 5 + t, \\ z < 25. \end{cases}$$

**where  $x, y, z, t$  are nonnegative integer numbers.**

**This system has infinitely many solutions. We just can state that  $x = 25$ ,  $z$  can take on any values from the set 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.**

**This problem is obviously formulated wrong.**