

Answer on Question#41677, Math, Other

Ray and Neil have 17 marbles put together. Ray and Paul have 15 marbles put together. Neil and Paul have 14 marbles. How many marbles does each person have?

Solution: Let's say: Ray as **x** marbles, Neil has **y** marbles and Paul has **z** marbles.

$$\begin{cases} x + y = 17 \\ x + z = 15 \\ y + z = 14 \end{cases} \equiv \begin{cases} y = 17 - x \\ z = 15 - x \\ 17 - x + 15 - x = 14 \end{cases}$$

Let's find x from third expression:

$$-2x = -18$$

$$x = 9$$

From first and second expressions:

$$y = 8, \quad z = 6$$

Answer: Ray has 9, Neil has 8 and Paul has 6 marbles.