

Answer on Question #79820 – Math – Algebra

Question

Monisha and Dave each sold magazine subscriptions as part of a fundraiser. Monisha raised $\frac{1}{2}$ as much money as Dave raised. Together they raised \$213.75. What is the total amount of money that Monisha raised?

Solution

Let say x be money that Monisha raised and y be money that Dave raised. Together they earned $x+y=213.75$

Monisha raised $\frac{1}{2}$ as much money as Dave raised, it means that $x = \frac{y}{2}$

Totally we obtain the system $\begin{cases} x + y = 213.75 \\ x = \frac{y}{2} \end{cases}$

$$\begin{cases} x + y = 213.75 \\ 2x = y \end{cases}$$

$$x + 2x = 213.75$$

$$3x = 213.75$$

$$x = 71.25$$

$$y = 2x = 142.5$$

Answer: Monisha raised \$71.25.