

WORD PROBLEM

Granny tells Alberto: "Shall we play together? " This is the game: Granny asks some questions and Alberto answers. One right answer is € 1,00, but one wrong answer is half a Euro less. Alberto tells Granny: "OK". After twenty questions, Alberto has € 8,00.

How many are the right answers? How many are the wrong answers?

TABLE

		€
Answers and questions	Tot. 20	Tot. € 8
Wrong answers	X	€ -1/2
Right answers	20 - X	€ 1,00

EQUATION

$$20 - x - \frac{1}{2} x = 8$$

RESULTS

$$\begin{aligned} x &= \text{wrong answers} = 8 \\ 20 - x &= \text{right answers} = 12 \end{aligned}$$

REASONING

If Alberto has 8 € then it means that he answered 8 times right and 12 times wrong. The sum of the correct answers and the wrong answers is equal to the sum of the questions that Granny made to Alberto.