

Question:

Melanie is a door-to-door saleswoman. She sold a third of her vacuum cleaners at the green house 2 more to the red house and half of what was left at the orange house. If Melanie has 5 vacuum cleaners left how many did she start with?

Reasoning + Answer:

<think> At the orange house, she sold $1 * 2 = 2$ vacuum cleaners, since she had half of what was left when she sold to the orange house, then, before selling to the orange house, she had $2 * 2 = 4$ vacuum cleaners. Therefore, Melanie had $4 + 2 = 6$ vacuum cleaners before she made sales at the red house. Therefore, Melanie started with $6 + 3 = 9$ vacuum cleaners. </think> <answer>9 </answer>