

Question:

Rob Royce and Pedro are contractors getting ready to put a new roof on three homes. If the three homes will need 250 cases of shingles with the first house needing 1/2 of the second and the third needing double the first. How many cases of shingles will the third house need?

Reasoning + Answer:

<think> We know that 3 houses need 250 cases of shingles. So, in total the three houses will need $250 / 3$ cases. So, the second house will need $250 / 3 * 1 / 2$ cases of shingles. So, the first house will need $250 / 3 * 1 / 2 * 1 / 2$ cases of shingles. So, the third house will need $250 / 3 - 250 / 3 * 1 / 2 - 250 / 3 * 1 / 2 * 1 / 2$ cases of shingles. So, the third house will need $250 / 3 * 1 / 2 - 250 / 3 * 1 / 2 * 1 / 2$ cases of shingles more than the first house. So, the third house will need $250 / 3 * 1 / 2 - 250 / 3 * 1 / 2 * 1 / 2 = 250 / 3 * 1 / 2 * 3 / 2$ cases of shingles. So, the third house will need $250 / 3 * 3 / 4 = 75$ cases of shingles. </think><answer>75</answer>