

Problem #6628. A new cruise ship line has just launched 3 new ships: the Pacific Paradise, the Caribbean Paradise, and The Mediterranean Paradise. The Caribbean Paradise has 33 more deluxe staterooms than the Pacific Paradise. The Mediterranean Paradise has 34 fewer deluxe staterooms than four times the number of deluxe staterooms on the Pacific Paradise. Find the number of deluxe staterooms for each of the ships if the total number of deluxe staterooms for the three ships is 554.

Solution Denote by x, y, z respectively the number of deluxe staterooms in the Pacific Paradise, the Caribbean Paradise, and The Mediterranean Paradise. Then from the text of the problem one can obtain that: $y = x + 33$, $z = 4x - 34$, $x + y + z = 554$, hence $6x - 1 = 554$. So $6x = 555$. To conclude, there is a mistake in the text of the problem!!! x must be an integer.

Answer Mistake in the text of the problem.