7. [10 points] Rachel is Phoebe’s secret snowflake this year, so she decided to make a guitar for her. Rachel needs to buy some wood and she has narrowed down her options to three: mahogany, walnut and cedar. Let \( M(v) \), \( W(v) \) and \( C(v) \) be the costs, in dollars, for buying \( v \) kg of the mahogany, walnut and cedar wood, respectively. In addition, assume that the functions \( M \), \( W \) and \( C \) are invertible.

\[ a. \, [3 \text{ points}] \text{ Write a mathematical expression for the following:} \]

The total cost, in cents, of buying 3 kg of cedar and 2.5 kg of walnut. 
(Note: There are 100 cents in 1 dollar.)

\[ \text{Solution:} \quad 100(C(3) + W(2.5)) \]

\[ b. \, [7 \text{ points}] \text{ Write a practical interpretation of the following:} \]

i. [3 points] \( C^{-1}(20) \)

\[ \text{Solution:} \quad C^{-1}(20) \text{ is the amount of cedar, in kg, Rachel can buy with } \$20. \]

ii. [4 points] \( W(6) = M(4) \).

\[ \text{Solution:} \quad \text{The cost, in dollars, of buying 6 kg of walnut and 4 kg of mahogany is the same.} \]