7. [11 points] Falco decides to raise sheep and cows on his farm.
   - Let \( W(p) \) be the amount of wool, in pounds per year, produced by a sheep who was fed \( p \) pounds of food per day.
   - Let \( M(p) \) be the amount of milk, in thousands of gallons per year, produced by a cow who was fed \( p \) pounds of food per day.

The functions \( W(p) \) and \( M(p) \) are differentiable and invertible.

a. [2 points] Use a complete sentence to give a practical interpretation of the equation
   \[ W^{-1}(28) = 10. \]

b. [3 points] Write a single equation representing the following statement in terms of the functions \( W, M \), and/or their inverses:

   A sheep that produced 12 pounds of wool per year was fed 5 fewer pounds of food per day than a cow that produced 2430 gallons of milk per year.

   Answer: ________________________________

c. [3 points] Complete the following sentence to give a practical interpretation of the equation
   \[ M'(23) = 0.15. \]

   If Falco feeds a cow 22.4 pounds of food per day instead of 23 pounds of food per day, then ...

   Answer: ________________________________

d. [3 points] Circle the one sentence that gives a valid interpretation of the equation
   \[ (W^{-1})'(12) = 0.7. \]

   i. To increase a sheep’s wool production from 12 pounds per year to 12.6 pounds per year, Falco should feed it about 0.42 extra pounds of food per day.

   ii. To increase a sheep’s wool production from 12 pounds per year to 12.1 pounds per year, Falco should feed it approximately 0.7 more pounds of food per day.

   iii. A sheep that is fed 12.3 pounds of food per day instead of 12 pounds of food per day will produce approximately 0.21 additional pounds of wool per year.

   iv. When a sheep produces 12 pounds of wool per year, feeding it an extra pound of food per day will cause it to produce about 0.7 additional pounds of wool per year.