

5. [13 points] After seeing the good effects of Gretchen's running routine, Chuck has decided to start running as well. Suppose $C(d)$ is the time (in seconds) it takes Chuck to run d meters, and suppose $G(d)$ is the time (in seconds) it takes for Gretchen to run d meters. Suppose C and G both have inverse functions.

a. [3 points] Give a practical interpretation of the expression $G^{-1}(600) = 800$.

b. [4 points] Give a practical interpretation of the expression $C^{-1}(G(300)) = 200$.

c. [3 points] Give an expression using function notation for Chuck's average speed in meters per second during his first 720 seconds of running. Circle your final answer.

d. [3 points] If $D(h)$ is the distance in meters Chuck needs to run to burn h calories, give a practical interpretation of the quantity $C(D(100))$.