Problem of the Week

Problem D

Walking is Good Exercise

Ali, Bill and Carl are lined up such that Ali is 100 m west of Bill and Carl is 160 m east of Bill. At noon, Carl begins to walk north at a constant rate of 41 $\frac{\text{m}}{\text{min}}$ and Ali walks south at a constant rate of 20 $\frac{\text{m}}{\text{min}}$. (Bill does not move.)

At what time will the distance between Carl and Bill be the twice the distance between Ali and Bill?