2-4)

An express train travels along a straight line between two stations, A and D. Stations B and C are spaced evenly along the line between A and D. The engineer leaves A and accelerates at a constant rate until he passes station B, at which time he coasts with constant velocity. When he reaches station C, he slows down at the same rate he used for the first segment of the trip, thereby coming gently to rest at station D. Given that the total trip requires 5 mins, how much time is spent going from

a) A to B?
b) B to C?
c) C to D?

HINT: Try a graphical solution.