HW 4-2 Soln)

Objects are: ground, air, and plane.

 $v_{P,G} = v_{P,A} + v_{A,G} = \Delta x_{P,G}/t \rightarrow t = \Delta x_{P,G}/v_{P,G} = \Delta x_{P,G}/(v_{P,A} + v_{A,G})$

Let to the east be positive.

I Westward trip: $t = \Delta x_{P,G} / (v_{P,A} + v_{A,G}) = -1800 / (-300 + 80) = 8.18$ hours

II Loading: t = 1 hour

III Eastward trip: $t = \Delta x_{P,G}/(v_{P,A} + v_{A,G}) = +1800/(+300 + 80) = 4.74$ hours

Total time = 8.18 + 1 + 4.74 = 13.92 hours