PROBLEM 12.10

The acceleration of a package sliding at Point A is 3 m/s². Assuming that the coefficient of kinetic friction is the same for each section, determine the acceleration of the package at Point B.

PROBLEM 12.12

The two blocks shown are originally at rest. Neglecting the masses of the pulleys and the effect of friction in the pulleys and assuming that the coefficients of friction between block A and the horizontal surface are $\mu_s = 0.25$ and $\mu_k = 0.20$, determine (a) the acceleration of each block, (b) the tension in the cable.

PROBLEM 12.16

Block A has a mass of 40 kg, and block B has a mass of 8 kg. The coefficients of friction between all surfaces of contact are $\mu_s = 0.20$ and $\mu_k = 0.15$. If $P = 40$ N $\rightarrow$, determine (a) the acceleration of block B, (b) the tension in the cord.