60. With arrangement (a), the rate of the heat flow is

$$\begin{aligned} P_{\text{cond}\,a} &= P_{\text{cond}\,1} + P_{\text{cond}\,2} = \frac{Ak_1}{2L}(T_H - T_C) + \frac{Ak_2}{2L}(T_H - T_C) \\ &= \frac{A}{2L}k_a(T_H - T_C) \end{aligned}$$

where $k_a = 4K_1 + k_2$. With arrangement (b), we use Eq. 19-36 to find the rate of heat flow:

$$P_{\text{cond}\,b} = \frac{2A\,(T_H - T_C)}{(L/k_1) + (L/k_2)} = \frac{A}{2L}k_b\,(T_H - T_C)$$

where $k_b = fk_1k_2/(k_1 + k_2)$. Since $k_1 \neq k_2$, we see that $(k_1 - k_2)^2 = (k_1 + k_2)^2 - 4k_1k_2 > 0$, or

$$\frac{k_b}{k_a} = \frac{4k_1 + k_2}{(k_1 + k_2)^2} < 0\ .$$

Therefore, $P_{\text{cond}\,b} < P_{\text{cond}\,a}$. That is, arrangement (b) would give the lower heat flow.