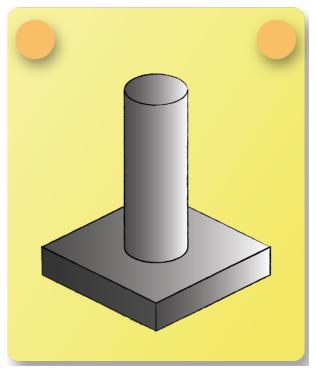


Lecture Fins Question 1



Which statements are correct regarding fins?



The purpose of fins is to decrease thermal resistance at a body's surface, due to an increased surface area the convective heat transfer is enhanced. Greater surface area goes along with increased friction forces, such that a higher pressure drop is observed within the fluid flow, which is an undesirable side effect in most applications. Since fins reduce thermal resistance at the convective surface they are most beneficial, when convective transfer is the bottle neck of heat transfer. That is the advantage of fins increases for decreased heat transfer coefficients.