To increase the efficiency of a heat engine, would it be better to produce the same temperature increment by increasing the temperature of the reservoir while holding the temperature of the sink constant, or to decrease the temperature of the sink while holding the temperature of the reservoir constant? Explain

Solution and answer:

Efficiency: $\eta = 1 - T_c/T_h = \frac{W_{net}}{Q_{in}}$,

decreasing temperature of the sink is better; since, increasing temperature of reservoir requires additional heat input.