ACT

A hot (98 C) slab of metal is placed in a cool (5C) bucket of water.

$\Delta S = Q/T$

What happens to the entropy of the metal?

A) Increase B) Same C) Decreases

Heat leaves metal: $Q<0$

What happens to the entropy of the water?

A) Increase B) Same C) Decreases

Heat enters water: $Q>0$

What happens to the total entropy (water+metal)?

A) Increase B) Same C) Decreases

$\Delta S = Q/T_{water} - Q/T_{metal}$