All thermal problems need access to the following data:

Specific Heats, Thermal conductivities and linear expansion coefficients of selected metals

Substance	**Specific Heat *c*, (J kg^{-1} K^{-1})**	**Thermal conductivity *k*, (W m^{-1} K^{-1})**	**Linear expansion coefficient α, (^{o}C)$^{-1}$**	**Density (gcm^{-3}) at 0^{o}C**
Aluminium	910	205.0	24 10^{-6}	2.70
Brass	377	109.0	19 10^{-6}	8.40
Copper	390	385.0	17 10^{-6}	8.96
Lead	130	34.7	29 10^{-6}	11.3
Steel	456	50.2	11 10^{-6}	7.85

Water

Quantity	**Value**
Specific Heat (liquid)	4186 Jkg^{-1}K^{-1}
Latent heat of Fusion	3.33×10^5 Jkg^{-1}
Latent heat of vapourization	2.26×10^6 Jkg^{-1}
Density (at 4.00^o C)	1000 kgm^{-3}
Melting point (at 1 atm)	0.000 °C
Boiling point (at 1 atm)	100.0 °C
Volume expansion coefficient (β) (at 20^{o}C: you may assume it is constant between 15^{o}C and 100^o C)	207×10^{-6} ($^\circ$C)$^{-1}$