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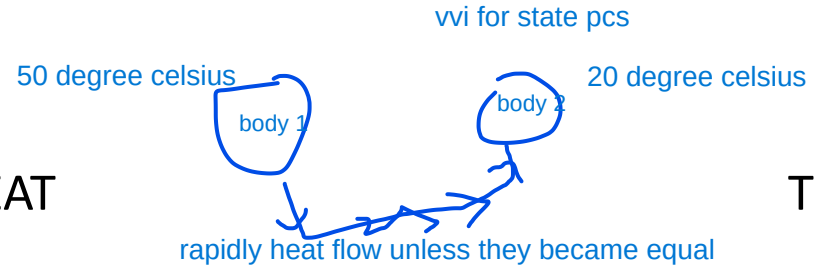
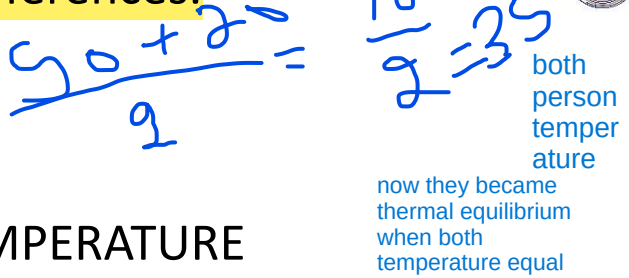
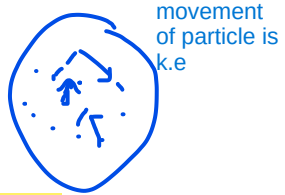
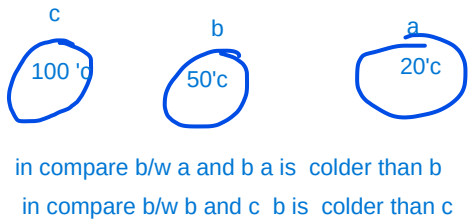
HEAT – Heat is the flow of energy due to temperature differences.





HEAT	TEMPERATURE
A form of energy measured in calorie or joule	A form of kinetic energy of particles measured in C, K, F
Any object above temperature Zero degree kelvin has heat energy	cold and hot terms are relative





The avg kinetic energy of all paricles in the object

The atoms mass and speed decides temperature of the object

Extreamly important formula

FROM THIS FORMULA WE CAN CHANGE C-F,F-R,R-K

ROMER

$$\frac{C}{5} = \frac{F-32}{9} = \frac{R}{4} = \frac{K-273}{5}$$

Q. ON WHICH VALUE F AND C SHOW SAME VALUE.

WE HAVE TO PUT

X/5=X-32/9 OR FIND VALUE OF X

Forhenheit---water freezes at 32 degree F and boils at 212 degree F

FREEZE at 0'c

boil at 100'c

Thermometer can measure the temperature because the substance of the liquid inside it expands equally and contracts equally

in thermometer we use mercury(metal)

in european cold countries ,in thermometer use alchoal because alchoal not freeze in -50'c

All gases ,liquids and solids expand when temperature increases

That's why bridges are built with short segments with small breaks to allow for expansion.

Joints such as this one are used in

Bridges to accommodate thermal

Expansion

Heat is measured by the unit of calorie and joule

m-mass, s-specific heat, dt-delta t (temperature difference)

Q=msdT

specific heat of water is 1

1 calorie = the amount of heat required to increase the temperature of 1 gm of water by 1 degree celceus.

1 calorie=4.18 joule

Specific heat ---the amount of heat required to increase the temperature of any substance by 1 degree celceus.

Unit –cal/gm degree celceus

q=msdt

q/mdt=s

cal/g c = cal/g c'

Ask Doubts at : doubts.studyiq@gmail.com

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