Submission 2

1-)convective heat transfer is a kind of heat transfer in the materials like gases and liquids that their molecules can transfer easily.the process islike a circulation that is caused by difference in tempreture.the molecules who recieved energy go uper and the cooler molecules remain in the down until they recieve energy and go up.

1(second part)-)as you said,we have a formula for total thermal resistane.the thermal resistance of glass is too low in value in compare by thermal resistance between air and glass and will not be an influencial factor if we increase the thicness of glass.

2-)my problem was mostly in the case of accuracy ofmy calculation.

3-)

1-we have to calculate the total resistance

$R_t=R_{conv1}+2R_{glass}+R_{air}+R_{conv2}$

$R_t=(1/((h_1)(A_1))+2(L/(k_{glass})(A_{glass}))+(L/(k_{air})(A_{air}))+(1/((h_2)(A_2))$

$R_t=(1/((1.2)(10))+2(.006/(.78)(1.2))+(.013/(.026)(12))+(1/((1.2)(40))=0.525$ (c/w)

2-we have to calculate the Q and we have a formula for that:

$Q=\Delta t/R_{total}$

Q=(20-(-10))/.0525=30/.0525=57.142 W

3(second part)-)

as far as I understood in class,we have a 6mm to 13 mm limitation for air gap between the glasses.If we increase this gap,the convection process is going to be happened by air molecules and the function of the air gap between two glasses in going to be useless.