1.
the rate of heat convection into and from the wall is equal to rate of heat conduction through the wall. based on the electrical analogy, for calculation of heat transfer through a wall, first of all we should clalculate the sum of convection resistance of the both surfaces of the wall and the conduction resistance of the wall and then the final result for rate of heat transfer is differences of tempratures over the sum of heat resistances.

2. My mistake in one of the questions was about just the calculation process.

3.

$$R_{g_1} = R_{g_2} = \frac{L_g}{(K_g \times A)} = \frac{0.006}{0.78 * 0.8 * 1.5} = 0.0064\,^\circ\frac{C}{W}$$

$$R_{airGap} = \frac{L_{airGap}}{(K_{airGap} \times A)} = \frac{0.013}{0.026 * 1.2} = 0.4166\ ^\circ C/W$$

$$R_{conv_1} = \frac{1}{h_1 \times A} = \frac{1}{10 * 1.2)} = 0.0833\,^\circ C/W$$

$$R_{conv_2} = \frac{1}{h_2 \times A} = (\frac{1}{40 * 1.2)} = 0.0208\,^\circ\frac{C}{W}$$

$$R_{tot} = 0.0833 + 0.0208 + 2 * 0.0064 + 0.4166 = 0.5335\,^\circ\frac{C}{W}$$

$$\dot{Q} = \frac{\Delta T}{R_{Tot}} = \frac{30}{0.5335} = 56.2324\,W$$

We cannot increase the distance between two glasses (air gap) more than a specific distance because after that air starts to move and we have heat convection.