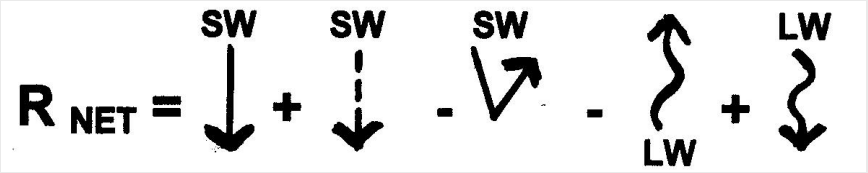
THE G-3 ANSWERS

The LEFT side of the equation:

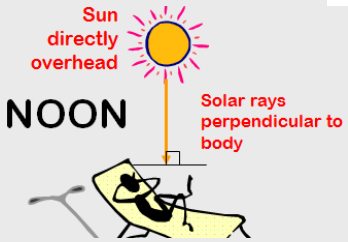


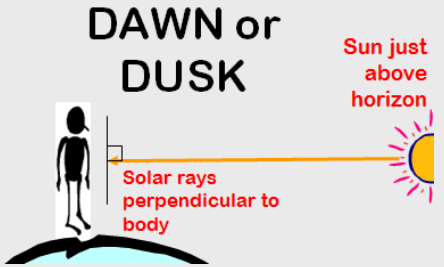
1. SW gases of atmosphere scatter shorter blue wavelengths

2. SW

3. SW

4. Noon: more SW & dusk: more SW





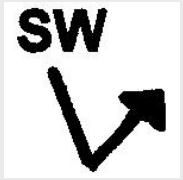
5. LW + LW together = the Greenhouse Effect

6.

(dust, thicker atmosphere scatters longer red/orange wavelengths)

7.

radiates day & night; camera senses IR

8. 

9.

leads to distinct shadows, while diffuse SW

radiation does not

10.

All wavelengths of visible part of spectrum are scattered & transmitted in a colored spectrum by raindrops

11. Attempt to increase absorption & reduce

into eyes; reduces glare

12. More

is absorbed, leads to more

which can then warm up car

The RIGHT Side of the Equation:

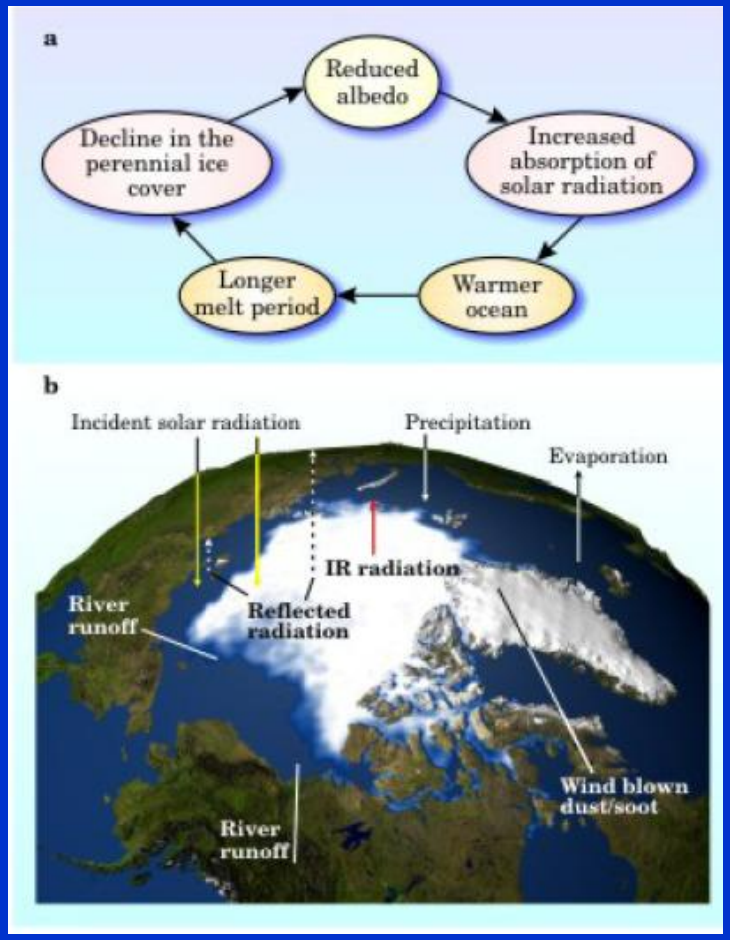
= H + LE + G

13. H Hot air (less dense than surrounding cool air) rises in a convection current & lifts balloon

14. Wet mud evaporates from pig & cools him: LE
also heat from pig's body is conducted into soil: G

15. June is hot & dry in Tucson. Dry, hot air can "hold" more water vapor, so water in cooler pads is evaporated easily. Hence more energy goes into LE instead of H This cools the house!

GROUP BONUS POINT



albedo

Extent of ice cover

SW radiation absorbed

Amount of melting

Ocean temperature

GROUP BONUS PT - Part 1

On the index card provided write your Group # then:

a) state which feedback loop was described in the film

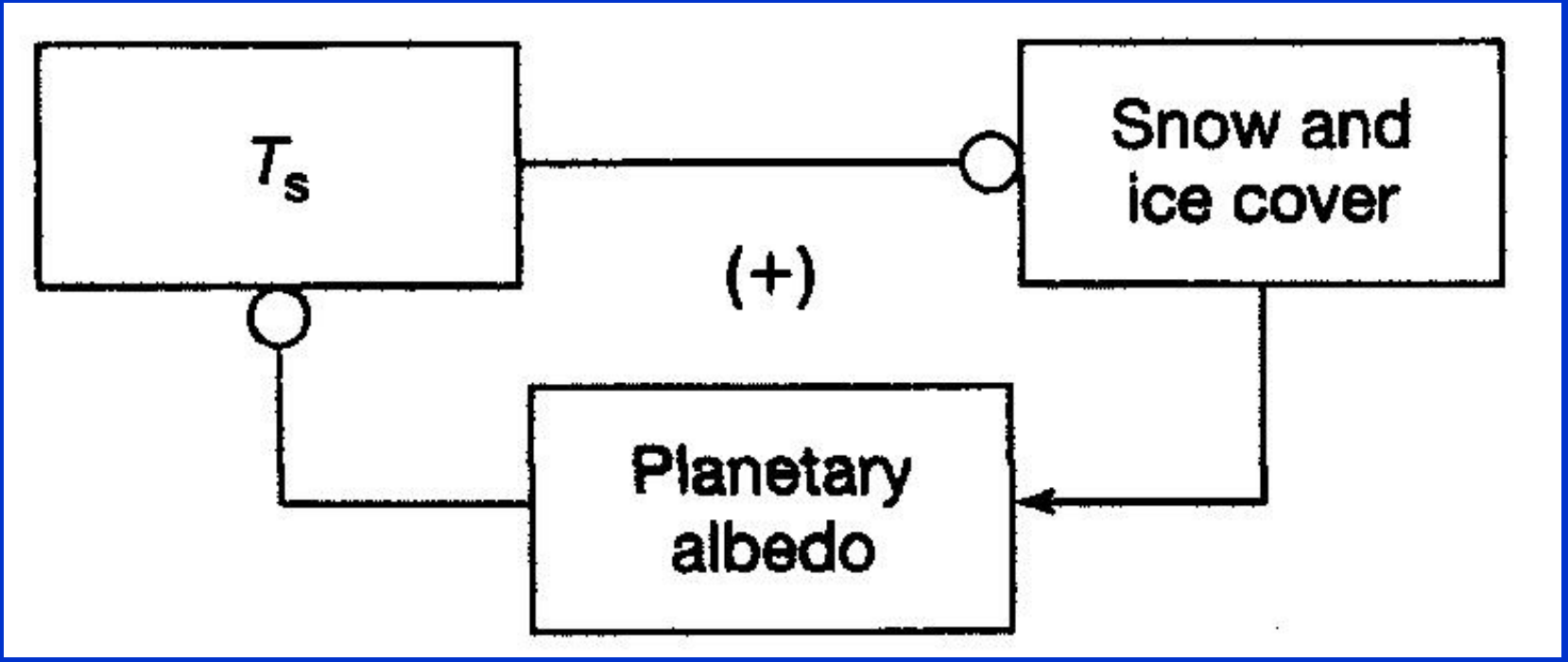
b) sketch the FEEDBACK DIAGRAM for it

GROUP BONUS PT - Part 2

NOW – on the back of the index card, as a group, complete the feedback loop on the bottom of page 58 by linking the components with the proper coupling arrow symbols as used in SGC.

PART 1 ANSWER:

SNOW AND ICE ALBEDO Feedback



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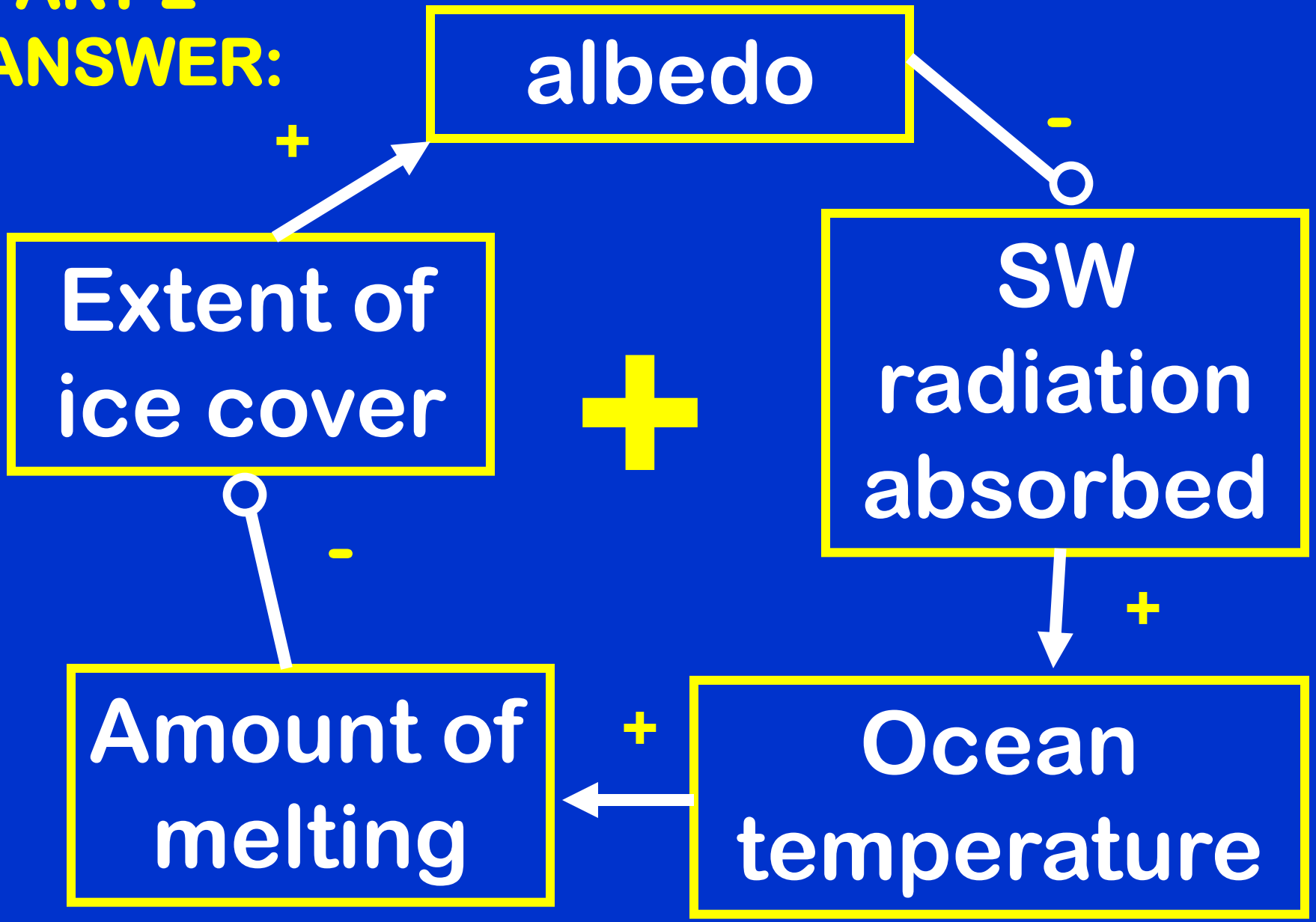
PART 2 ANSWER: