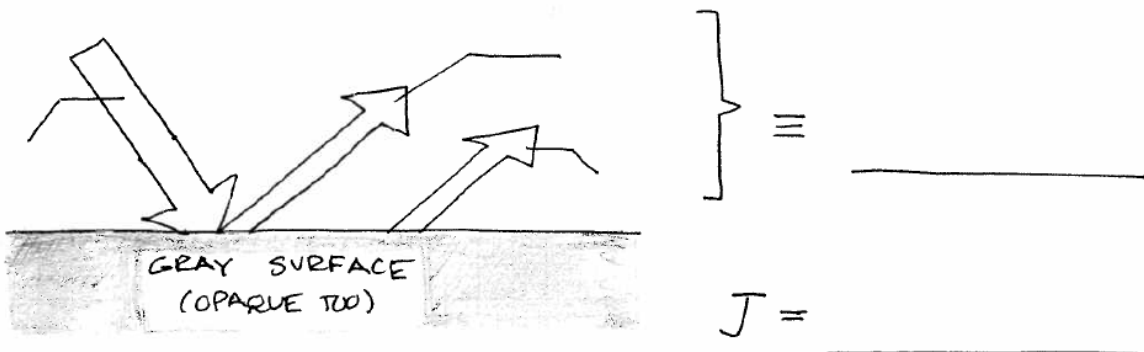


NOTES: Radiation between gray surfaces

RADIATION EXCHANGE BETWEEN GRAY SURFACES



PUT IN TERMS of ϵ , E_b & G

$J =$

*

WRITE AN EXPRESSION FOR THE NET RATE of RADIATION HEAT TRANSFER LEAVING A GRAY SURFACE.

$\dot{Q}_{i,NET} = \underline{\hspace{2cm}} - \underline{\hspace{2cm}} =$

ELIMINATE G

$\dot{Q}_{i,NET} =$

REARRANGE IN THIS FORM:

$\dot{Q}_{i,NET} = \frac{E_{b_i} - J_i}{\hspace{2cm}}$



* WHAT IS J FOR A BLACKBODY?

NOTES: Radiation between gray surfaces

BLACK
SURFACE



$$\dot{Q}_{NET} =$$

$$\dot{Q}_{NET} =$$

GRAY
SURFACE



$$\dot{Q}_{NET} =$$

$$\dot{Q}_{NET}$$