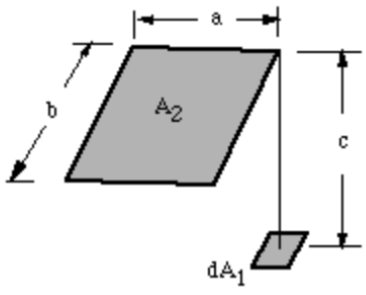
Case 1:

Write a Monte Carlo program to calculate the view factor with the location of dA_1 is at (x, y) where $0<x<D_x$ and $0<y<D_y$



$$F_{d1-2}=\frac{1}{2\pi}\left\{\begin{array}{l}\dfrac{A}{\left(1+A^2\right)^{1/2}}\tan^{-1}\left[\dfrac{B}{\left(1+A^2\right)^{1/2}}\right]\\ +\dfrac{B}{\left(1+B^2\right)^{1/2}}\tan^{-1}\left[\dfrac{A}{\left(1+B^2\right)^{1/2}}\right]\end{array}\right\}$$

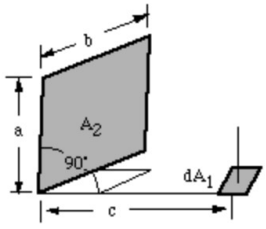
Definitions: A=a/c; B=b/c

Use the following notation:

$a=D_x, b=D_y, c=D_z$

Case 2:

Write a Monte Carlo program to calculate the view factor with the location of dA_1 is at (x, y) where $0<x<D_x$ and $0<y<D_y$



$$F_{d1-2} = \frac{1}{2\pi}\left[\tan^{-1}\left(\frac{1}{C}\right) - \frac{C}{Y}\tan^{-1}\left(\frac{1}{Y}\right)\right]$$

Definitions: A=a/b; C=c/b; $Y=(A^2+C^2)^{1/2}$

Use the following notation:

$a=D_z, b=D_y, c=D_x$