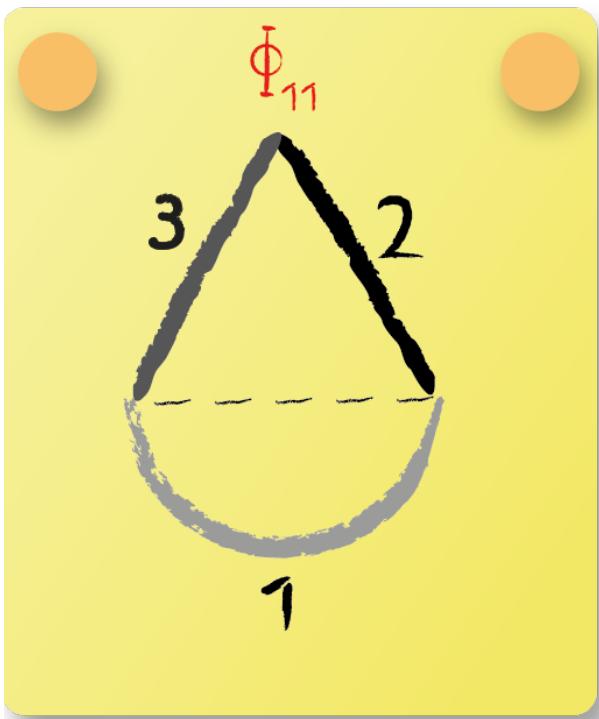


View Factor: Task 21



The image shows a combination of a triangular and a hemisphere body. What is ϕ_{11} ?

1



$$\phi_{11} = 1 - 2/\pi$$

2



As we know $\phi_{H,1} = 1$, $\phi_{H,H} = 0$ from hemisphere 1 to the plane indicated by the dashed line (H). Reciprocity rule can be applied for $\phi_{1,H} = (A_H/A_1) \cdot (\phi_{H,1})$ and the result is $\phi_{1,H} = 2/\phi$. Now the enclosure rule is applied as $\phi_{1,1} + \phi_{1,H} = 1$.