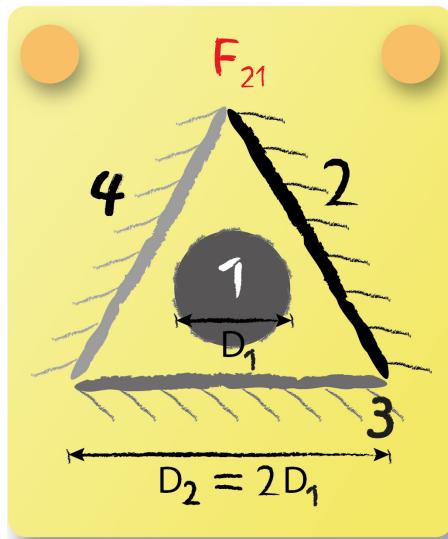


Lecture 05 - View Factor 16

Determine view factor F_{12} .



It can be seen:

$$F_{11} = 0$$

As we are dealing with an isosceles triangle and body 1 is located in the center, from symmetry it can be seen:

$$F_{12} = 1/3$$

Areas:

$$A_1 = \pi D_1 L$$

$$A_2 = 2D_1 L$$

Reciprocity rule:

$$\begin{aligned} F_{21} A_2 &= F_{12} A_1 \\ \rightarrow F_{21} &= F_{12} \frac{A_1}{A_2} = \frac{1}{3} \frac{\pi D_1 L}{2D_1 L} = \frac{\pi}{6} \end{aligned}$$