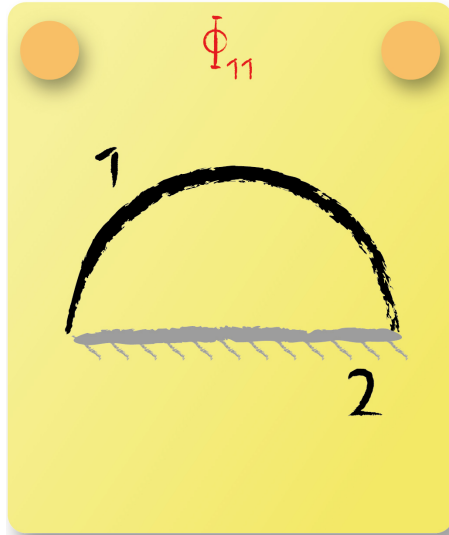# Lecture 05 - View Factor 14

Determine view factor F_{11}.

It can be seen:

$$F_{21} = 1$$

Areas:

$$A_1 = \pi r \cdot L$$
$$A_2 = 2r \cdot L$$

Reciprocity rule:

$$F_{21}A_2 = F_{12}A_1$$
$$F_{12} = \frac{A_2}{A_1} = \frac{2rL}{\pi rL} = \frac{2}{\pi}$$

Summation rule:

$$F_{11} + F_{12} = 1$$
$$\rightarrow F_{11} = 1 - \frac{2}{\pi}$$