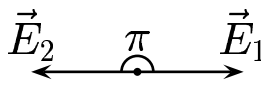
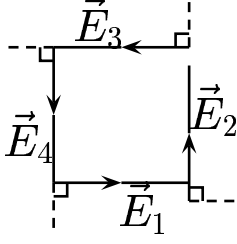


Consider the phasor diagram for the first minimum. For  $N > 2$ , the first minimum occurs when the contributing vectors form a closed  $N$ -sided polygon. Define  $\beta (= \phi_{ends})$  to be the angle measured from  $E_1$  to  $E_N$ .

# of slits	Phasor diagram	$\beta = \phi_{ends}$
2-slits		$\pi$
4-slits		$\frac{3\pi}{2}$
6 slits	?	?

Consider the 6 slits case. Sketch the phasor diagram which corresponds the first minimum. The angle  $\beta$  for this case is given by

- A)  $\beta = \frac{\pi}{3}$ .
- B)  $\beta = \pi$ .
- C)  $\beta = \frac{5\pi}{3}$ .

From sketch,  $\beta = 2\pi - \frac{\pi}{3} = \frac{5\pi}{3}$ .

Answer **C**.