

4.

exterior angle and adjacent interior angles form a linear pair

$\therefore x + 165 = 180^\circ$ where x is measure of each exterior \angle

$$\Rightarrow x = 180 - 165 \\ = 15.$$

$$\begin{aligned} \text{no. of sides} &= \frac{360^\circ}{\text{each exterior } \angle} \\ &= \frac{360}{15} \\ &= 24 \end{aligned}$$

$$5 \text{ (i)} \quad \text{no. of sides} = \frac{\cancel{360} 180}{\cancel{22}_{11}}$$

$\frac{180}{11}$ is not a +ve integer

\therefore no

$$\text{(ii)} \quad \text{each exterior angle} = 180^\circ - 22 \\ = 158$$

$$\text{no. of sides} = \frac{\cancel{360} 180}{\cancel{158}_{79}}$$

$\therefore \frac{180}{79}$ is not a positive integer

\therefore no