

---

---

---

---

---



$$D_n = \langle a, b \mid a^n = b^n = (ab)^n = 1 \rangle$$

whose order is  $2n$  ( $n \geq 2$ )

From a geometric point of view

$D_n$  is the symmetric group of  $n$ -regular polygon

where  $a$  denote the symmetry of an axis  
 $b$  denote rotate  $\frac{2\pi d}{n}$  rad ( $\gcd(d, n) = 1$ )