

# ① Regular Tilings

- i)  $3^6$     ii)  $6^3$     iii)  $4^4$

# ② Semiregular Tilings

- i)  $3 \cdot 12^2$     ii)  $3 \cdot 4 \cdot 6 \cdot 4$     iii)  $4 \cdot 6 \cdot 12$

- iv)  $3 \cdot 6 \cdot 3 \cdot 6$     v)  $4 \cdot 8^2$     vi)  $3^2 4 3 4$

- vii)  $3^3 \cdot 4^2$     viii)  $3^4 \cdot 6$

Recall, the internal angle of a regular  $n$ -gon is

$$\theta_n = \left(1 - \frac{2}{n}\right) \cdot 180^\circ$$

$n$	3	4	5	6	7	8	9	10	11	12
$\theta_n$	$60^\circ$	$90^\circ$	$108^\circ$	$120^\circ$	$\left(\frac{900}{7}\right)^\circ$ 128.57... $^\circ$	$135^\circ$	$140^\circ$	$144^\circ$	$147.27^\circ$	$150^\circ$

$n$	13	14	15	16	18	20	24	42
$\theta_n$	$152.307692^\circ$	$154.285714^\circ$	$156^\circ$	$157.5^\circ$	$160^\circ$	$162^\circ$	$165^\circ$	$\left(\frac{1200}{7}\right)^\circ$



### ③ Unusable combinations

i)  $3 \cdot 7 \cdot 42$

ii)  $3 \cdot 8 \cdot 24$

iii)  $3 \cdot 9 \cdot 18$

iv)  $3 \cdot 10 \cdot 15$

v)  $4 \cdot 5 \cdot 20$

vi)  $5 \cdot 2 \cdot 10$