



次の式を計算せよ。

$$(1) \left(\cos \frac{\pi}{4} + i \sin \frac{\pi}{4} \right)^4$$

$$(4) \left(\frac{3 - \sqrt{3}i}{2} \right)^8$$

$$(2) \left(\cos \frac{\pi}{6} - i \sin \frac{\pi}{6} \right)^3$$

$$(5) \left(\frac{\sqrt{3} - i}{\sqrt{3} + i} \right)^3$$

$$(3) (1+i)^{12}$$

$$(6) \left(\frac{5-i}{2-3i} \right)^{10}$$