

Fill in the Blanks

Multiplying and Dividing in Modulus-Argument Form

z_1 in $a + bi$ and modulus-argument form	z_2 in $a + bi$ and modulus-argument form	$z_1 z_2$ in $a + bi$ and modulus-argument form	$\frac{z_1}{z_2}$ in $a + bi$ and modulus-argument form
$\sqrt{3} + i$	$-2 + 2\sqrt{3}i$	$-4\sqrt{3} + 4i$	$-\frac{1}{2}$
$2 \left(\cos\left(\frac{\pi}{6}\right) + i \sin\left(\frac{\pi}{6}\right) \right)$	$4 \left(\cos\left(\frac{2\pi}{3}\right) + i \sin\left(\frac{2\pi}{3}\right) \right)$	$8 \left(\cos\left(\frac{5\pi}{6}\right) + i \sin\left(\frac{5\pi}{6}\right) \right)$	$\frac{1}{2} \left(\cos\left(-\frac{\pi}{2}\right) + i \sin\left(-\frac{\pi}{2}\right) \right)$
$\frac{5}{2} + \frac{5\sqrt{3}}{2}i$	$\frac{\sqrt{3}}{2} - \frac{1}{2}i$	$\frac{5\sqrt{3}}{2} + \frac{5}{2}i$	5
$5 \left(\cos\left(\frac{\pi}{3}\right) + i \sin\left(\frac{\pi}{3}\right) \right)$	$\cos\left(-\frac{\pi}{6}\right) + i \sin\left(-\frac{\pi}{6}\right)$	$5 \left(\cos\left(\frac{\pi}{6}\right) + i \sin\left(\frac{\pi}{6}\right) \right)$	$5 \left(\cos\left(\frac{\pi}{2}\right) + i \sin\left(\frac{\pi}{2}\right) \right)$
$1 + i$	$-2i$	$4i$	$\frac{1}{2}$
$\sqrt{2} \left(\cos\left(\frac{\pi}{4}\right) + i \sin\left(\frac{\pi}{4}\right) \right)$	$2 \left(\cos\left(-\frac{\pi}{2}\right) + i \sin\left(-\frac{\pi}{2}\right) \right)$	$2\sqrt{2} \left(\cos\left(-\frac{\pi}{4}\right) + i \sin\left(-\frac{\pi}{4}\right) \right)$	$\frac{\sqrt{2}}{2} \left(\cos\left(\frac{3\pi}{4}\right) + i \sin\left(\frac{3\pi}{4}\right) \right)$
$-\frac{3\sqrt{2}}{2} - \frac{3\sqrt{2}}{2}i$	$\frac{\sqrt{2}}{6} - \frac{\sqrt{2}}{6}i$	-1	$-9i$
$3 \left(\cos\left(-\frac{3\pi}{4}\right) + i \sin\left(-\frac{3\pi}{4}\right) \right)$	$\frac{1}{3} \left(\cos\left(-\frac{\pi}{4}\right) + i \sin\left(-\frac{\pi}{4}\right) \right)$	$\cos(-\pi) + i \sin(-\pi)$	$9 \left(\cos\left(-\frac{\pi}{2}\right) + i \sin\left(-\frac{\pi}{2}\right) \right)$
$2\sqrt{3} - 2i$	$-2\sqrt{3} - i$	-8	$-1 + \sqrt{3}i$
$4 \left(\cos\left(-\frac{\pi}{6}\right) + i \sin\left(-\frac{\pi}{6}\right) \right)$	$2 \left(\cos\left(-\frac{5\pi}{6}\right) + i \sin\left(-\frac{5\pi}{6}\right) \right)$	$8(\cos(\pi) + i \sin(\pi))$	$2 \left(\cos\left(\frac{2\pi}{3}\right) + i \sin\left(\frac{2\pi}{3}\right) \right)$