Fill in the Blanks	De Moivre's Theorem

$(x+iy)^n$	$\left(r(\cos\theta + i\sin\theta)\right)^n$	$r^n(\cos n\theta + i\sin n\theta)$	$a+bi$
$\left(\sqrt{3}+i\right)^4$	$\left(2\left(\cos\frac{\pi}{6}+i\sin\frac{\pi}{6}\right)\right)^4$	$16\left(\cos\frac{2\pi}{3}+i\sin\frac{2\pi}{3}\right)$	$-8+8\sqrt{3}i$
$(1-i)^5$	$\left(\sqrt{2}\left(\cos\left(-\frac{\pi}{4}\right)+i\sin\left(-\frac{\pi}{4}\right)\right)\right)^5$	$4\sqrt{2}\left(\cos\left(-\frac{5\pi}{4}\right)+i\sin\left(-\frac{5\pi}{4}\right)\right)$	$-4+4i$
$\left(1+\sqrt{3}i\right)^7$	$\left(2\left(\cos\frac{\pi}{3}+i\sin\frac{\pi}{3}\right)\right)^7$	$128\left(\cos\frac{7\pi}{3}+i\sin\frac{7\pi}{3}\right)$	$64+64\sqrt{3}i$
$\left(-2\sqrt{3}+2i\right)^{-2}$	$\left(4\left(\cos\frac{5\pi}{6}+i\sin\frac{5\pi}{6}\right)\right)^{-2}$	$\frac{1}{16}\left(\cos\left(-\frac{5\pi}{3}\right)+i\sin\left(-\frac{5\pi}{3}\right)\right)$	$\frac{1}{32}-\frac{\sqrt{2}}{16}i$
$(2-2i)^3$	$\left(2\sqrt{2}\left(\cos\left(-\frac{\pi}{4}\right)+i\sin\left(-\frac{\pi}{4}\right)\right)\right)^3$	$16\sqrt{2}\left(\cos\left(-\frac{3\pi}{4}\right)+i\sin\left(-\frac{3\pi}{4}\right)\right)$	$-16-16i$
$\left(\frac{1}{2}+\frac{\sqrt{3}}{2}i\right)^{-6}$	$\left(\cos\frac{\pi}{3}+i\sin\frac{\pi}{3}\right)^{-6}$	$\cos(-2\pi)+i\sin(-2\pi)$	1
$(3+4i)^5$	$\left(5(\cos(0.927)+i\sin(0.927)\right)^5$	$3125(\cos(4.636)+i\sin(4.636)$	$-237-3116i$
$\left(\frac{\sqrt{6}}{2}-\frac{3\sqrt{2}}{2}i\right)^4$	$\left(\sqrt{6}\left(\cos\frac{\pi}{3}-i\sin\frac{\pi}{3}\right)\right)^4$	$36\left(\cos\left(-\frac{4\pi}{3}\right)+i\sin\left(-\frac{4\pi}{3}\right)\right)$	$-18+18\sqrt{3}i$