

代幾 I 計算演習 [問題] (2007/04/26)

問. 次の複素数を極形式に変換しなさい。

Q.1

$$-2\sqrt{3} + 2\sqrt{3}i$$

Q.2

$$-\sqrt{2} - \sqrt{2}i$$

Q.3

$$\frac{9\sqrt{2}}{4} + \frac{3\sqrt{6}}{4}i$$

Q.4

$$\frac{5\sqrt{3}}{6} + \frac{5}{2}i$$

Q.5

$$-2\sqrt{2}i$$

Q.6

$$-2i$$

Q.7

$$-\sqrt{6} - \sqrt{6}i$$

Q.8

$$-2\sqrt{3}$$

Q.9

$$-3\sqrt{2}i$$

Q.10

$$-1 + i$$

Q.11

$$-\frac{4\sqrt{3}}{3}$$

Q.12

$$-\frac{\sqrt{3}}{6} - \frac{i}{2}$$

Q.13

$$-\frac{3\sqrt{3}}{2} + \frac{9}{2}i$$

Q.14

$$\frac{3}{4} + \frac{\sqrt{3}}{4}i$$

Q.15

$$\frac{3}{2} - \frac{3}{2}i$$

Q.16

$$-\frac{3\sqrt{3}}{4} + \frac{3}{4}i$$

Q.17

$$\sqrt{6}i$$

Q.18

$$-\frac{\sqrt{2}}{3}$$

Q.19

$$-\frac{5}{2} + \frac{5\sqrt{3}}{6}i$$

代幾 I 計算演習 [解答] (2007/04/26)

A.1	$2\sqrt{6}(\cos \frac{3}{4}\pi + i \sin \frac{3}{4}\pi)$	A.11	$\frac{4\sqrt{3}}{3}(\cos \pi + i \sin \pi)$
A.2	$2(\cos \frac{5}{4}\pi + i \sin \frac{5}{4}\pi)$	A.12	$\frac{\sqrt{3}}{3}(\cos \frac{4}{3}\pi + i \sin \frac{4}{3}\pi)$
A.3	$\frac{3\sqrt{6}}{2}(\cos \frac{\pi}{6} + i \sin \frac{\pi}{6})$	A.13	$3\sqrt{3}(\cos \frac{2}{3}\pi + i \sin \frac{2}{3}\pi)$
A.4	$\frac{5\sqrt{3}}{3}(\cos \frac{\pi}{3} + i \sin \frac{\pi}{3})$	A.14	$\frac{\sqrt{3}}{2}(\cos \frac{\pi}{6} + i \sin \frac{\pi}{6})$
A.5	$2\sqrt{2}(\cos \frac{3}{2}\pi + i \sin \frac{3}{2}\pi)$	A.15	$\frac{3\sqrt{2}}{2}(\cos \frac{7}{4}\pi + i \sin \frac{7}{4}\pi)$
A.6	$2(\cos \frac{3}{2}\pi + i \sin \frac{3}{2}\pi)$	A.16	$\frac{3}{2}(\cos \frac{5}{6}\pi + i \sin \frac{5}{6}\pi)$
A.7	$2\sqrt{3}(\cos \frac{5}{4}\pi + i \sin \frac{5}{4}\pi)$	A.17	$\sqrt{6}(\cos \frac{\pi}{2} + i \sin \frac{\pi}{2})$
A.8	$2\sqrt{3}(\cos \pi + i \sin \pi)$	A.18	$\frac{\sqrt{2}}{3}(\cos \pi + i \sin \pi)$
A.9	$3\sqrt{2}(\cos \frac{3}{2}\pi + i \sin \frac{3}{2}\pi)$	A.19	$\frac{5\sqrt{3}}{3}(\cos \frac{5}{6}\pi + i \sin \frac{5}{6}\pi)$
A.10	$\sqrt{2}(\cos \frac{3}{4}\pi + i \sin \frac{3}{4}\pi)$		