

Plot the complex number and find the trigonometric form of the number.

<p>1. <math>5 - 5i</math> <math>r = \sqrt{50}</math> <math>\theta = 7\pi/4</math></p> <p>3. <math>\sqrt{3} + i</math> <math>r = 2</math> <math>\theta = \pi/6</math></p> <p>5. <math>-2(1 + \sqrt{3}i)</math> <math>r = 4</math> <math>\theta = 4\pi/3</math></p> <p>7. <math>8i</math> <math>r = 8</math> <math>\theta = \pi/2</math></p> <p>9. <math>-\frac{7}{2} + 4i</math> <math>r = \sqrt{65}</math> <math>\theta = 150.3^\circ</math></p> <p>11. <math>1 + 10i</math> <math>r = \sqrt{101}</math> <math>\theta = 84.3^\circ</math></p> <p>13. <math>7</math> <math>r = 7</math> <math>\theta = 0</math></p> <p>15. <math>-7 - i</math> <math>r = \sqrt{50}</math> <math>\theta = 188.1</math></p>	<p>2. <math>4 + 4i</math> <math>r = \sqrt{32}</math> <math>\theta = \pi/4</math></p> <p>4. <math>-1 + \sqrt{3}i</math> <math>r = 2</math> <math>\theta = 2\pi/3</math></p> <p>6. <math>\frac{5}{2}(\sqrt{3} - i)</math> <math>r = 5</math> <math>\theta = 11\pi/6</math></p> <p>8. <math>-6i</math> <math>r = 6</math> <math>\theta = 3\pi/2</math></p> <p>10. <math>5 - i</math> <math>r = \sqrt{26}</math> <math>\theta = 348.7^\circ</math></p> <p>12. <math>2\sqrt{2} - i</math> <math>r = 3</math> <math>\theta = 340.5</math></p> <p>14. <math>4</math> <math>r = 4</math> <math>\theta = 0</math></p> <p>16. <math>1 + 3i</math> <math>r = \sqrt{10}</math> <math>\theta = 71.6</math></p>	<p><math>4\sqrt{2}(\cos \pi/4 + i \sin \pi/4)</math></p> <p><math>2(\cos \pi/6 + i \sin \pi/6)</math></p> <p><math>4(\cos 4\pi/3 + i \sin 4\pi/3)</math></p> <p><math>8(\cos \pi/2 + i \sin \pi/2)</math></p> <p><math>\sqrt{65}(\cos 150.3^\circ + i \sin 150.3^\circ)</math></p> <p><math>\sqrt{101}(\cos 84.3^\circ + i \sin 84.3^\circ)</math></p> <p><math>7(\cos 0 + i \sin 0)</math></p> <p><math>5\sqrt{2}(\cos 188.1^\circ + i \sin 188.1^\circ)</math></p>	<p><math>4\sqrt{2}(\cos \pi/4 + i \sin \pi/4)</math></p> <p><math>2(\cos 2\pi/3 + i \sin 2\pi/3)</math></p> <p><math>5(\cos 11\pi/6 + i \sin 11\pi/6)</math></p> <p><math>6(\cos 3\pi/2 + i \sin 3\pi/2)</math></p> <p><math>\sqrt{26}(\cos 348.7^\circ + i \sin 348.7^\circ)</math></p> <p><math>3(\cos 340.5^\circ + i \sin 340.5^\circ)</math></p> <p><math>4(\cos 0 + i \sin 0)</math></p> <p><math>\sqrt{10}(\cos 71.6^\circ + i \sin 71.6^\circ)</math></p>
--	---	--	---

Find the standard form of the complex number.

<p>17. <math>2(\cos 120^\circ + i \sin 120^\circ)</math> <math>-\frac{1}{2}</math> <math>\frac{\sqrt{3}}{2}</math> <math>-1 + \sqrt{3}i</math></p> <p>19. <math>\frac{3}{2}(\cos 330^\circ + i \sin 330^\circ)</math> <math>\frac{\sqrt{3}}{2}</math> <math>-\frac{1}{2}</math> <math>\frac{3\sqrt{3}}{4} - \frac{3}{4}i</math></p> <p>21. <math>3.75(\cos \frac{3\pi}{4} + i \sin \frac{3\pi}{4})</math> <math>-\frac{\sqrt{2}}{2}</math> <math>\frac{\sqrt{2}}{2}</math> <math>-\frac{15\sqrt{2}}{8} + \frac{15\sqrt{2}}{8}i</math></p> <p>23. <math>4(\cos \frac{3\pi}{2} + i \sin \frac{3\pi}{2})</math> <math>0</math> <math>-1</math> <math>-4i</math></p>	<p>18. <math>5(\cos 135^\circ + i \sin 135^\circ)</math> <math>-\frac{\sqrt{2}}{2}</math> <math>\frac{\sqrt{2}}{2}</math> <math>-\frac{5\sqrt{2}}{2} + \frac{5\sqrt{2}}{2}i</math></p> <p>20. <math>\frac{3}{4}(\cos 315^\circ + i \sin 315^\circ)</math> <math>\frac{\sqrt{2}}{2}</math> <math>-\frac{\sqrt{2}}{2}</math> <math>\frac{3\sqrt{2}}{8} - \frac{3\sqrt{2}}{8}i</math></p> <p>22. <math>8(\cos \frac{5\pi}{6} + i \sin \frac{5\pi}{6})</math> <math>-\frac{\sqrt{3}}{2}</math> <math>\frac{1}{2}</math> <math>-4\sqrt{3} + 4i</math></p> <p>24. <math>9(\cos 0 + i \sin 0)</math> <math>1</math> <math>0</math> <math>9</math></p>
--	--