1.07abc

lördag 20 januari 2024 18:44

a)

$$|2-2i| = \sqrt{4+4} = \sqrt{8} = 2\sqrt{2}$$

$$\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}}i = e^{i\theta}$$

$$\theta = -\pi/4 + 2\pi k \qquad k = \text{heltal}$$

b)

$$|\sqrt{3} - i| = \sqrt{3+1} = 2$$

$$\frac{\sqrt{3}}{2} - \frac{1}{2}i = e^{i\theta}$$

$$\theta = -\pi/6 + 2\pi k \qquad k = \text{heltal}$$

$$|1| = 1$$

$$1 + 0i = e^{i\theta} \qquad \theta = 0 + 2\pi k$$