

пример 1

$$1 \cdot \cos x + 1 \cdot \sin x = \sqrt{2} \cdot \sin(x + \pi/4)$$

$$\sin y = 1/\sqrt{2}$$

$$\cos y = 1/\sqrt{2}$$

пример 2

$$1 \cdot \sin x - \cos x = \sqrt{2} \sin(x + 7\pi/4)$$

$$\sin y = -1/\sqrt{2}$$

$$\cos y = 1/\sqrt{2}$$

$$y = 7\pi/4$$

пример 3

$$1 \cdot \sin x - \sqrt{3} \cos x = 2 \sin(x + 5\pi/3)$$

$$\sin y = -\sqrt{3}/2$$

$$\cos y = 1/2$$

$$y = 5\pi/3$$

пример 4

$$\sqrt{3} \sin x + 1 \cdot \cos x = 2 \sin(x + \pi/6)$$

$$\sin y = 1/2$$

$$\cos y = \sqrt{3}/2$$

$$y = \pi/6$$

пример 5

$$5 \sin x + 7 \cos x = \sqrt{74} \sin(x + \arcsin(7/\sqrt{74}))$$

$$\sin y = 7/\sqrt{74}$$

$$\cos y = 5/\sqrt{74}$$

$$y = \arcsin(7/\sqrt{74}); \arccos(5/\sqrt{74})$$

