

пример 1  
 $1 \cdot \cos x + 1 \cdot \sin x =$

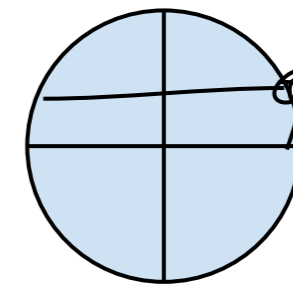
пример 2  
 $1 \cdot \sin x - \cos x =$

пример 3  
 $1 \cdot \sin x - \sqrt{3} \cos x =$

пример 4  
 $\sqrt{3} \sin x + 1 \cdot \cos x =$

пример 5  
 $5 \sin x + 7 \cos x =$

$$\begin{aligned} \cos t &= 5/\sqrt{74} \\ \sin t &= 7/\sqrt{74} \end{aligned}$$



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

$$\begin{aligned} a \sin x + b \cos x &= \sqrt{a^2 + b^2} \left[ \frac{a \sin x}{\sqrt{a^2 + b^2}} + \frac{b \cos x}{\sqrt{a^2 + b^2}} \right] = \\ &= \sqrt{a^2 + b^2} [\cos t \sin x + \sin t \cos x] = \sqrt{a^2 + b^2} \sin(x+t) \end{aligned}$$