

### Adicijski izreki:

$$\begin{aligned}\sin(\alpha + \beta) &= \sin \alpha \cdot \cos \beta + \cos \alpha \cdot \sin \beta \\ \sin(\alpha - \beta) &= \sin \alpha \cdot \cos \beta - \cos \alpha \cdot \sin \beta \\ \cos(\alpha + \beta) &= \cos \alpha \cdot \cos \beta - \sin \alpha \cdot \sin \beta \\ \cos(\alpha - \beta) &= \cos \alpha \cdot \cos \beta + \sin \alpha \cdot \sin \beta = e_\alpha \cdot e_\beta \\ \tan(\alpha + \beta) &= \frac{\tan \alpha + \tan \beta}{1 - \tan \alpha \cdot \tan \beta}\end{aligned}$$

### Dvojni koti:

$$\begin{aligned}\sin 2\alpha &= 2 \sin \alpha \cos \alpha \\ \cos 2\alpha &= \cos^2 \alpha - \sin^2 \alpha \\ \sin \alpha &= \pm \sqrt{\frac{1 - \cos 2\alpha}{2}} \Rightarrow \sin \frac{\alpha}{2} = \pm \sqrt{\frac{1 - \cos \alpha}{2}} \\ \cos \alpha &= \pm \sqrt{\frac{1 + \cos 2\alpha}{2}} \Rightarrow \cos \frac{\alpha}{2} = \pm \sqrt{\frac{1 + \cos \alpha}{2}}\end{aligned}$$

### Faktorizacijske formule:

$$\begin{aligned}\sin \alpha + \sin \beta &= 2 \sin \frac{\alpha + \beta}{2} \cdot \cos \frac{\alpha - \beta}{2} \\ \sin \alpha - \sin \beta &= 2 \cos \frac{\alpha + \beta}{2} \cdot \sin \frac{\alpha - \beta}{2} \\ \cos \alpha + \cos \beta &= 2 \cos \frac{\alpha + \beta}{2} \cdot \cos \frac{\alpha - \beta}{2} \\ \cos \alpha - \cos \beta &= -2 \sin \frac{\alpha + \beta}{2} \cdot \sin \frac{\alpha - \beta}{2}\end{aligned}$$

### Defaktorizacijske formule:

$$\begin{aligned}\sin a \cdot \cos b &= \frac{1}{2} [\sin(a+b) + \sin(a-b)] \\ \cos a \cdot \cos b &= \frac{1}{2} [\cos(a+b) + \cos(a-b)] \\ \sin a \cdot \sin b &= -\frac{1}{2} [\cos(a+b) - \cos(a-b)]\end{aligned}$$

### Kot med premicama:

$$\tan \alpha = \left| \frac{k_2 - k_1}{1 + k_1 k_2} \right|$$