

Komplexni rozcvicka

> **z := 1+I*1;**

$$z := 1 + I$$

> **abs(z);**

$$\sqrt{2}$$

> **Re(z);**

$$1$$

> **Im(z);**

$$1$$

> **conjugate(z);**

$$1 - I$$

> **argument(z);**

$$\frac{\pi}{4}$$

> **signum(z);**

$$\left(\frac{1}{2} + \frac{1}{2}I\right)\sqrt{2}$$

> **csgn(z);**

$$1$$

> **polar(z);**

$$\text{polar}\left(\sqrt{2}, \frac{\pi}{4}\right)$$

>

>

> **evalc(abs(z));**

$$\sqrt{2}$$

> **evalc(Re(z));**

$$1$$

> **evalc(signum(z));**

$$\frac{\sqrt{2}}{2} + \frac{1}{2}I\sqrt{2}$$

> **evalc(polar(r,theta));**

$$r \cos(\theta) + r \sin(\theta) I$$

> **map(evalc,convert(z, polar));**

$$\text{polar}\left(\sqrt{2}, \frac{\pi}{4}\right)$$

> **expand((1+I)^2);**

$$2I$$

> **evalc(sqrt(-4));**

$$2I$$

> **expand((1+I)/(1-I));**

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[ >
[ > z1:=1;
[ >  $z1 := 1$ 
[ > z2:=(cos(a))^2+(sin(a))^2;
[ >  $z2 := \cos(a)^2 + \sin(a)^2$ 
[ > R1:=Re(z1);
[ >  $R1 := 1$ 
[ > R2:=Re(z2);
[ >  $R2 := \Re(\cos(a)^2 + \sin(a)^2)$ 
[ > R1=R2;
[ >  $1 = \Re(\cos(a)^2 + \sin(a)^2)$ 
[ > solve(R1=R2,a);
[ >  $a$ 
[ > solve(z1=z2,a);
[ >  $a$ 
[ >
[ > Credit:= "I&C, p. 116-137" ;
[ >  $Credit := "I&C, p. 116-137"$ 
[ >

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