

## tab.1 Tableaux for Other Logics

mod:tab:mpr:  
sec

**Example tab.1.** We give a closed tableau that shows  $\mathbf{S5} \vdash 5$ , i.e.,  $\Box\varphi \rightarrow \Box\Diamond\varphi$ .

1.	$1\mathbb{F} \Box\varphi \rightarrow \Box\Diamond\varphi$	Assumption
2.	$1\mathbb{T} \Box\varphi$	$\rightarrow\mathbb{F} 1$
3.	$1\mathbb{F} \Box\Diamond\varphi$	$\rightarrow\mathbb{F} 1$
4.	$1.1\mathbb{F} \Diamond\varphi$	$\Box\mathbb{F} 3$
5.	$1\mathbb{F} \Diamond\varphi$	$4r\Diamond 4$
6.	$1.1\mathbb{F} \varphi$	$\Diamond\mathbb{F} 5$
7.	$1.1\mathbb{T} \varphi$	$\Box\mathbb{T} 2$
	$\otimes$	

**Problem tab.1.** Give closed tableaux that show the following:

1.  $\mathbf{KT5} \vdash B$ ;
2.  $\mathbf{KT5} \vdash 4$ ;
3.  $\mathbf{KDB4} \vdash T$ ;
4.  $\mathbf{KB4} \vdash 5$ ;
5.  $\mathbf{KB5} \vdash 4$ ;
6.  $\mathbf{KT} \vdash D$ .

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## Bibliography