# **Testing Report**

## **Operator Overload Test**

### plus / +

	var_free	var_nn	var_sdp	var_symm	expression	Constant
var_free	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_nn	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_sdp	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>
var_symm	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>
expression	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>
Constant	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

#### minus / -

	var_free	var_nn	var_sdp	var_symm	expression	Constant
var_free	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
var_nn	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>
var_sdp	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_symm	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
expression	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Constant	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

#### mtimes / \*

	var_free	var_nn	var_sdp	var_symm	expression
scalar	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
matrix	<b>√</b>	<b>✓</b>	not possible	not possible	✓
cell	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	not supported yet

#### eq / ==

	var_free	var_nn	var_sdp	var_symm	expression	Constant
var_free	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_nn	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_sdp	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_symm	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
expression	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Constant	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

#### ge / >=

	var_free	var_nn	var_sdp	var_symm	expression	Constant
var_free	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>
var_nn	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_sdp	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_symm	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
expression	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Constant	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

#### le / <=

	var_free	var_nn	var_sdp	var_symm	expression	Constant
var_free	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
var_nn	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
var_sdp	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>
var_symm	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
expression	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Constant	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	

## other operator

	var_free	var_nn	var_sdp	var_symm	expression
times/ .*	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not support yet
uplus/ +	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	✓
uminus/ -	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓

## **Predefined Maps Test**

	var_free	var_nn	var_sdp	var_symm	expression
get_value	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not supported
inprod	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not supported yet
l1_norm	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
map_diag	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not supported yet
map_vec	<b>√</b>	<b>√</b>	Not supported	Not supported	Not supported
map_svec	Not supported	Not supported	<b>✓</b>	<b>✓</b>	Not supported
sum	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not supported yet
trace	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Not supported

## Functions in sdp\_model

#### add\_affine\_constr aint

lower_bound	upper_bound	twodirect_bound	affine_ expression	chain	
<b>√</b>	✓	✓	✓	<b>√</b>	

### $add\_psd\_constr\,aint$

lower_bou	nd upper_bound	twodirect_bou	nd affine_expressi	on chain
<b>√</b>	✓	<b>√</b>	✓	✓

#### Others

add_variable	minimize	maximize	setparameter
<b>√</b>	<b>✓</b>	<b>√</b>	✓