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variables: $X = \{1,2,3,4,5,6\}$ $Y = \{1,2,3,4,5,6\}$ $Z = \{1,2,3,4,5,6\}$

constraints: $X < Y$ $Y < Z$ $X + Z = 9$

Arcs: XX $Z > Y$

edge removed from queue	constraint to be checked	affected variable	values removed from variable domain (if any)	edge(s) added to queue (if any)
$X \rightarrow Y$	XX			
$Y \rightarrow Z$	YX			
$Y \rightarrow X$	$Y > X$	Y	5	$X \rightarrow Y$
$Z \rightarrow Y$	$Z > Y$	Z	1	$Y \rightarrow Z$
$Z \rightarrow X$	$Z = 9 - X$	Z	2,3	none
$X \rightarrow Z$	$X = 9 - Z$	X	1,3	$X \rightarrow Y, Z - X$
$X \rightarrow Y$	XX			
$Y \rightarrow Z$	YY			
$X \rightarrow Y$	$X < Y$	X	4	none
$Z \rightarrow X$	$Z = 9 - X$	X	4,5	none
$Y \rightarrow X$	$Y > X$	X		

variables: $X = \{3\}$ $Y = \{4\}$ $Z = \{6\}$

constraints: $X < Y$ $Y < Z$ $X + Z = 9$

Arcs: XX $Z > Y$ $Z = 9 - X$ $X = 9 - Z$

agenda (queue): XX $Z > Y$ $Z = 9 - X$ $X = 9 - Z$ $X < Y$ $Y < Z$ $X < Y$ $Z = 9 - X$

$Y > X$