

# Summary

October 16, 2019

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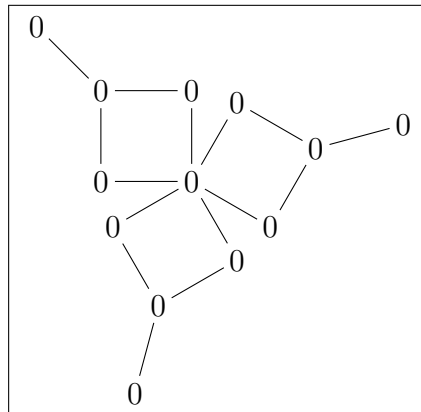
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## 0.1 Loaded Graphs

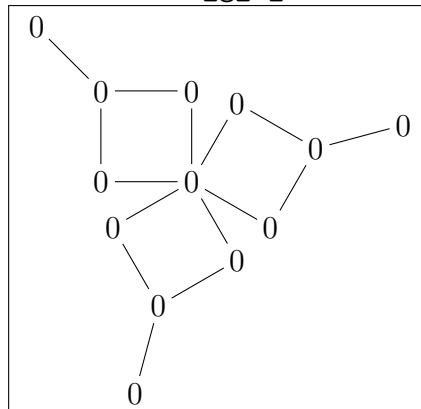
### 0.1.1 Goal

$\boxed{0}$   
 File: out/000\_g\_0\_10300000  
 $\boxed{0}$   
 File: out/000\_g\_0\_11310100

### 0.1.2 Start



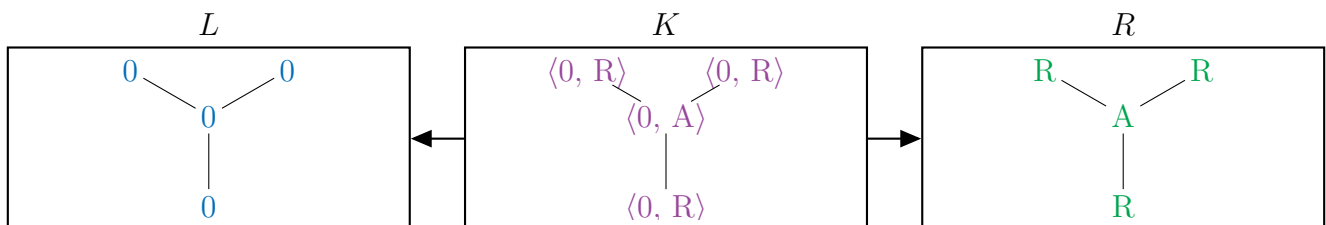
File: out/001\_g\_1\_10300000



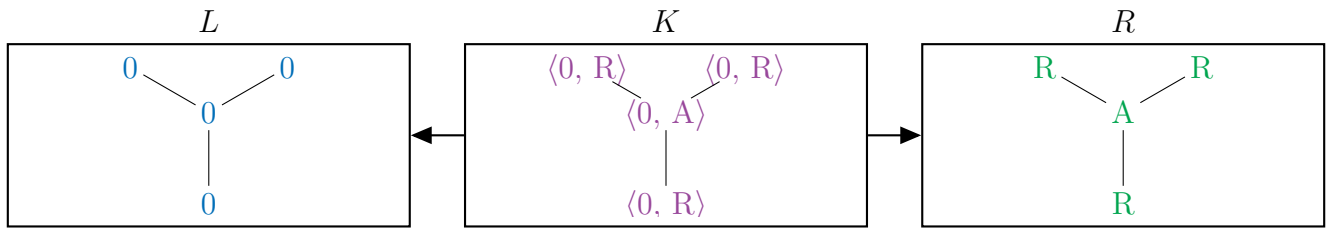
File: out/001\_g\_1\_11310100

## 0.2 Loaded Rules

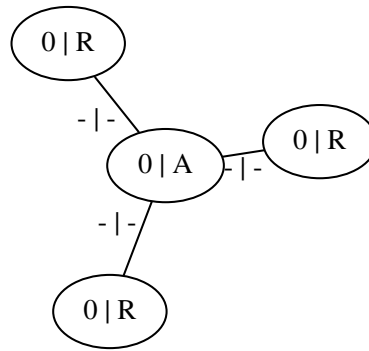
### 0.2.1 Mark for conversion



Files: out/003\_r\_0\_10300000\_{L, K, R}



Files: out/004\_r\_0\_11300100\_{L, K, R}



File: out/005\_r\_0\_combined

$$|\{e \in \text{outEdges}(0)\}| = 3$$

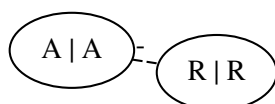
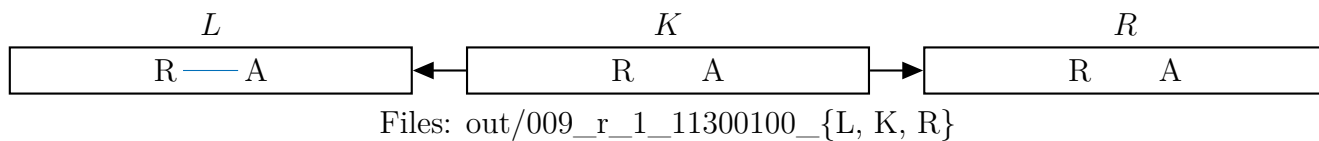
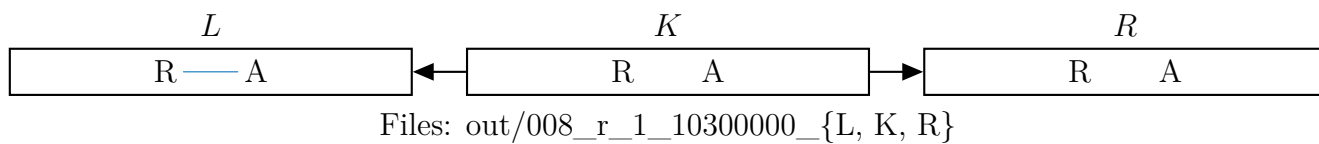
$$|\{e \in \text{outEdges}(0) \mid \text{label}(\text{target}(e)) \in \{ '0' \} \}| = 3$$

$$|\{e \in \text{outEdges}(1) \mid \text{label}(\text{target}(e)) \in \{ 'R', 'A' \} \}| = 0$$

$$|\{e \in \text{outEdges}(2) \mid \text{label}(\text{target}(e)) \in \{ 'R', 'A' \} \}| = 0$$

$$|\{e \in \text{outEdges}(3) \mid \text{label}(\text{target}(e)) \in \{ 'R', 'A' \} \}| = 0$$

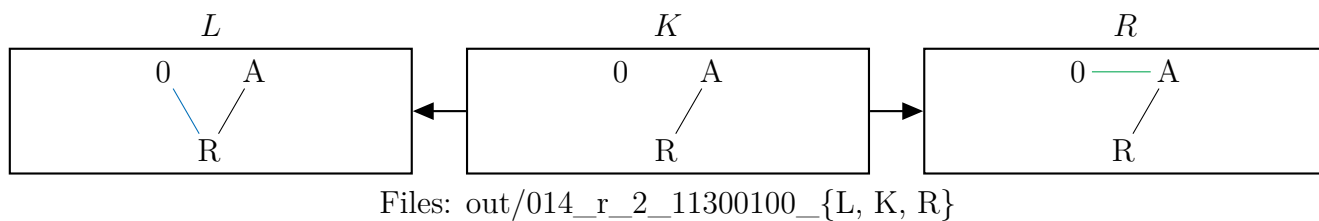
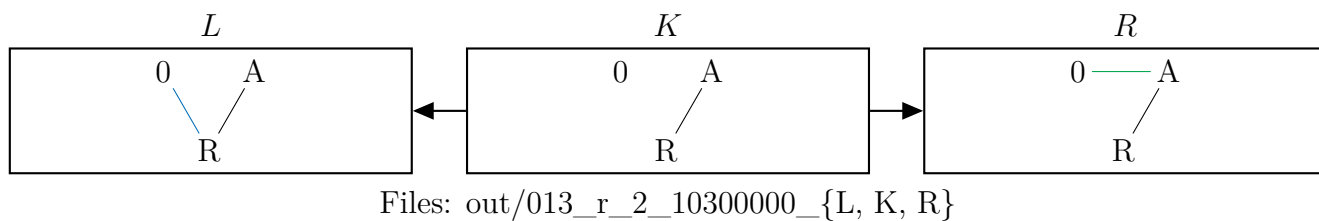
## 0.2.2 RemoveSingleR

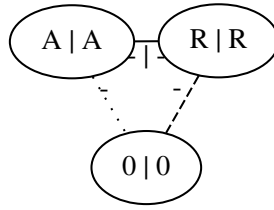


File: out/010\_r\_1\_combined

$$|\{e \in \text{outEdges}(1) \mid \text{label}(\text{target}(e)) \in \{0, \mathbf{R}\}\}| = 0$$

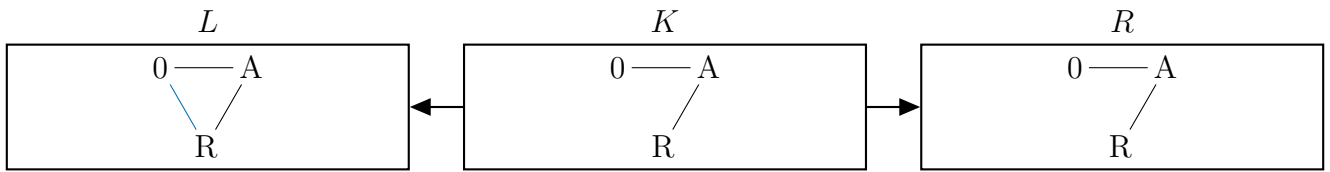
## 0.2.3 reattachExternalEdge



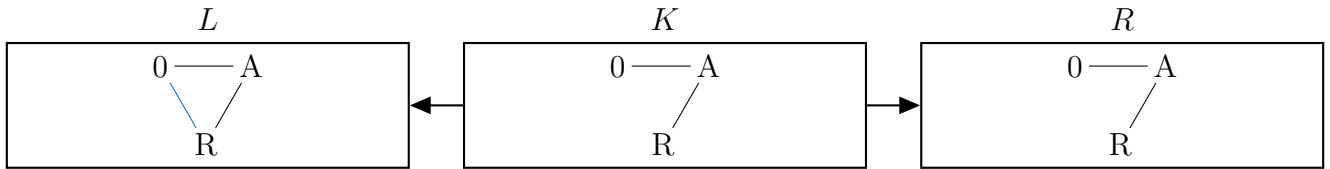


File: out/015\_r\_2\_combined

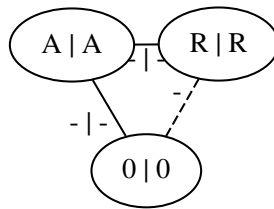
#### 0.2.4 removeAlreadyAttached



Files: out/018\_r\_3\_10300000\_{L, K, R}

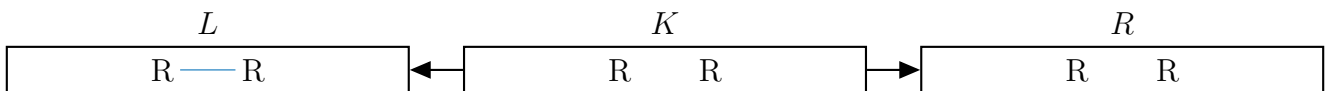


Files: out/019\_r\_3\_11300100\_{L, K, R}

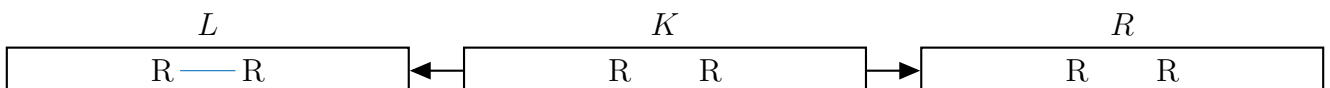


File: out/020\_r\_3\_combined

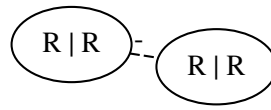
#### 0.2.5 removeInterREdge



Files: out/023\_r\_4\_10300000\_{L, K, R}



Files: out/024\_r\_4\_11300100\_{L, K, R}

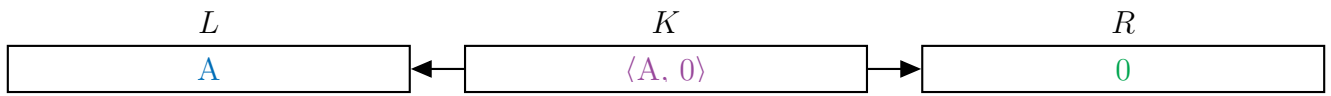


File: out/025\_r\_4\_combined

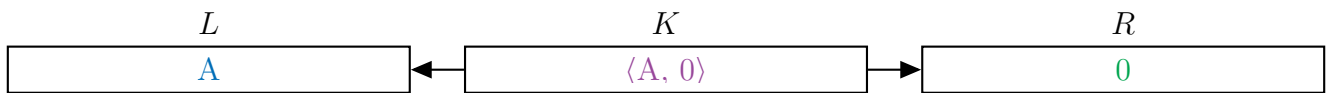
$$|\{e \in \text{outEdges}(0) \mid \text{label}(\text{target}(e)) \in \{\text{'A'}, \text{'0'}\}\}| = 0$$

$$|\{e \in \text{outEdges}(1) \mid \text{label}(\text{target}(e)) \in \{\text{'A'}, \text{'0'}\}\}| = 0$$

## 0.2.6 unmarkCollapsedNode



Files: out/028\_r\_5\_10300000\_{L, K, R}



Files: out/029\_r\_5\_11300100\_{L, K, R}

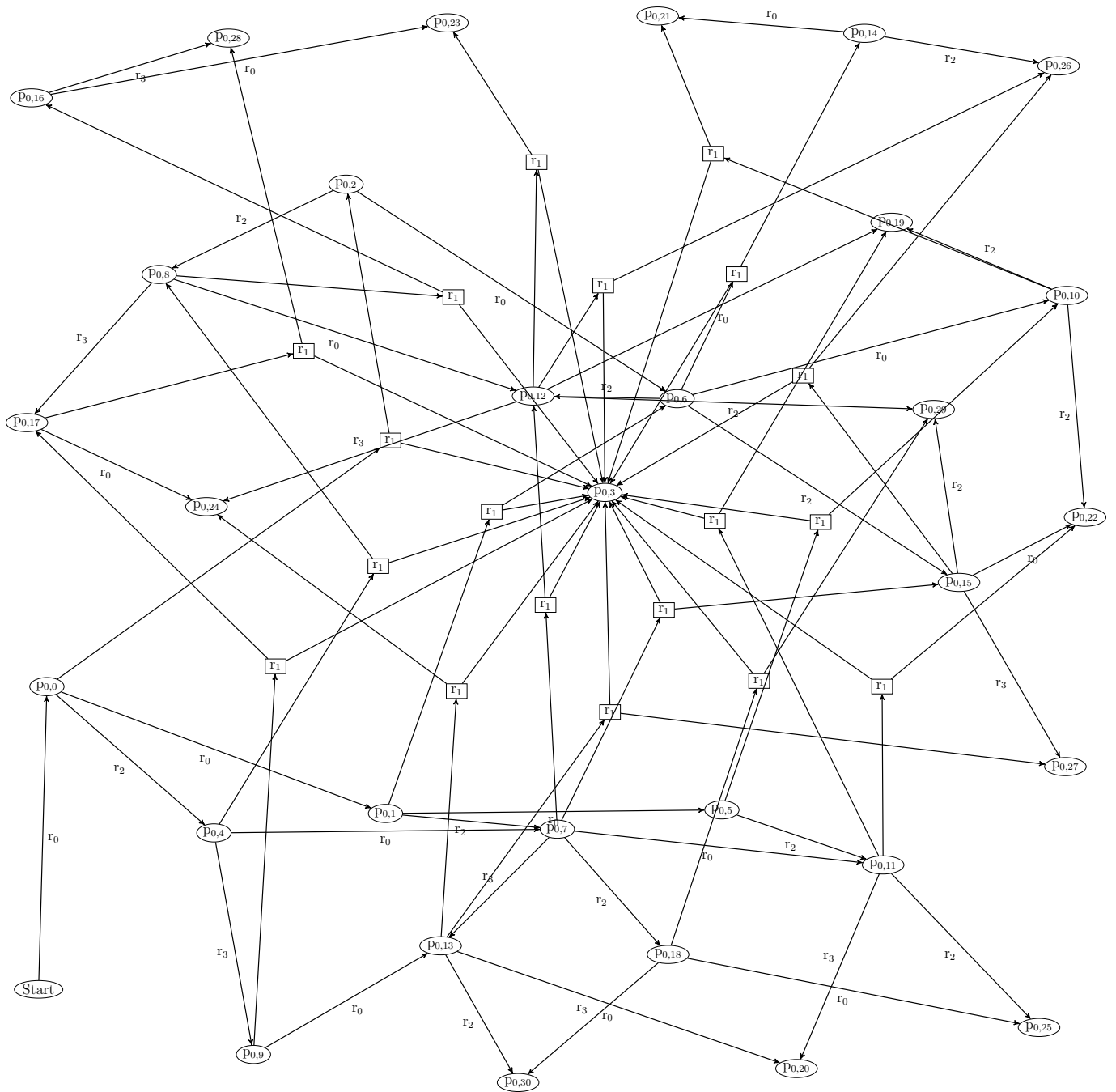


File: out/030\_r\_5\_combined

$$|\{e \in \text{outEdges}(0) \mid \text{label}(\text{target}(e)) \in \{\text{'R'}\}\}| = 0$$



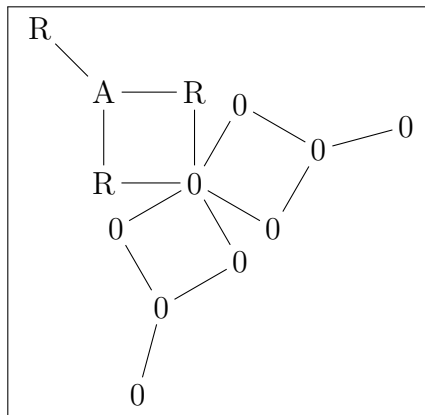
## 0.2.7 DG Hyper, dg\_0



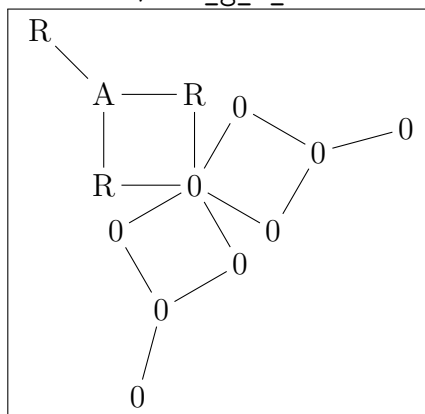
File: out/033\_dg\_0\_10100

## 0.3 Product Graphs

### 0.3.1 $p_{\{0,0\}}$

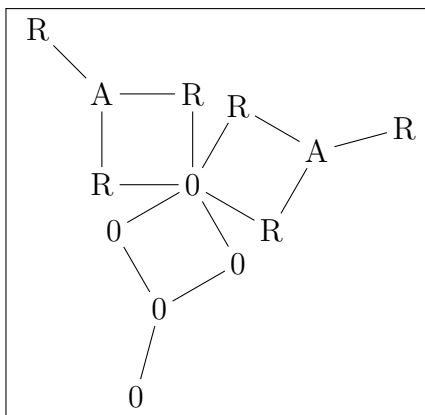


File: out/034\_g\_2\_10300000

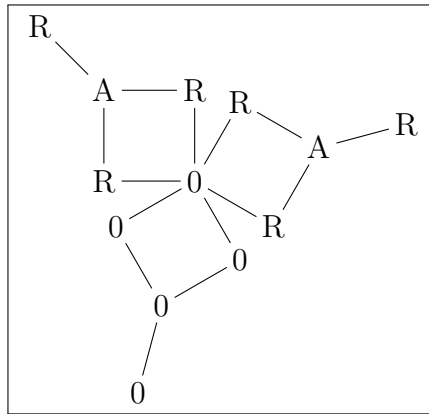


File: out/034\_g\_2\_11310100

### 0.3.2 $p_{\{0,1\}}$

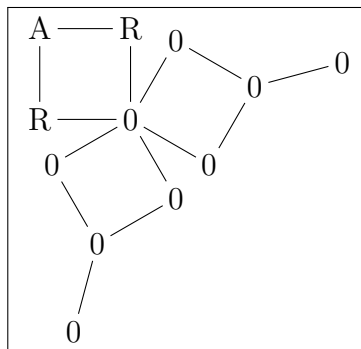


File: out/035\_g\_20\_10300000

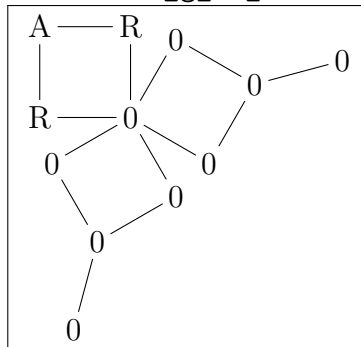


File: out/035\_g\_20\_11310100

### 0.3.3 $p_{\{0,2\}}$



File: out/036\_g\_32\_10300000



File: out/036\_g\_32\_11310100

### 0.3.4 $p_{\{0,3\}}$

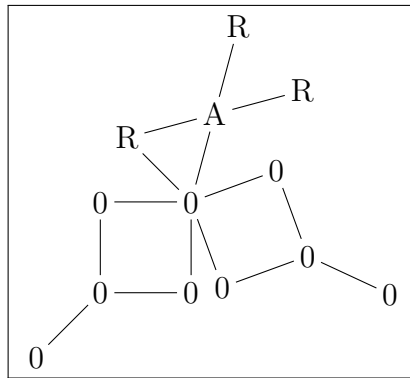
R

File: out/037\_g\_33\_10300000

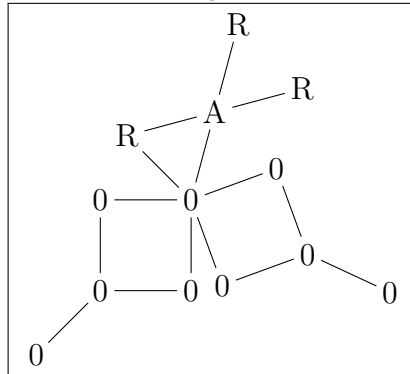
R

File: out/037\_g\_33\_11310100

### 0.3.5 $p_{\{0,4\}}$

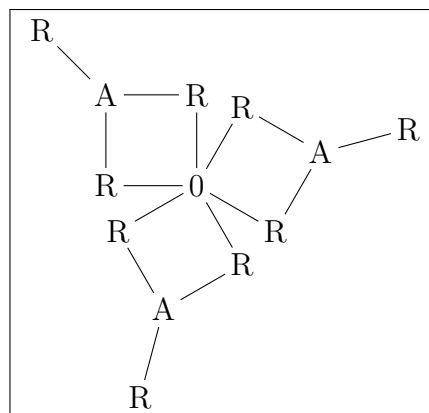


File: out/038\_g\_34\_10300000

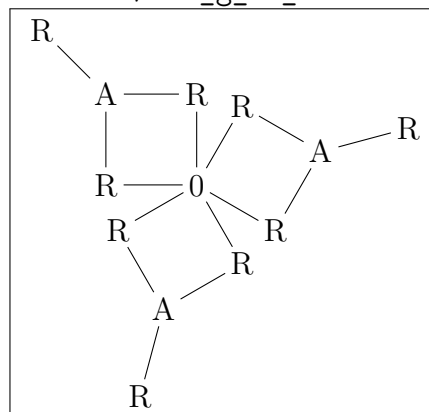


File: out/038\_g\_34\_11310100

### 0.3.6 $p_{\{0,5\}}$

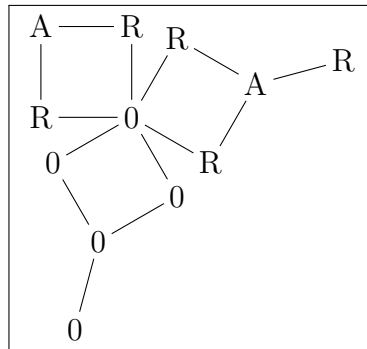


File: out/039\_g\_36\_10300000

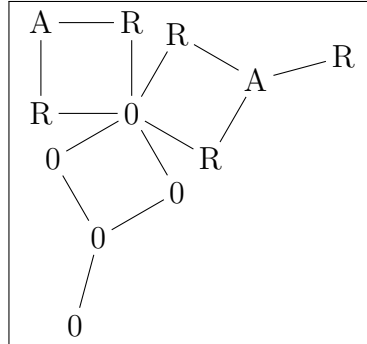


File: out/039\_g\_36\_11310100

### 0.3.7 $p_{\{0,6\}}$

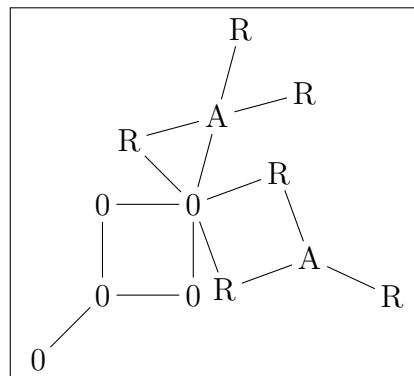


File: out/040\_g\_42\_10300000

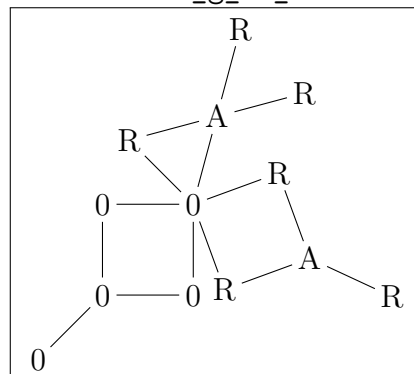


File: out/040\_g\_42\_11310100

### 0.3.8 $p_{\{0,7\}}$

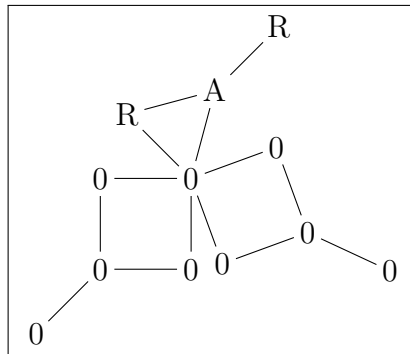


File: out/041\_g\_54\_10300000

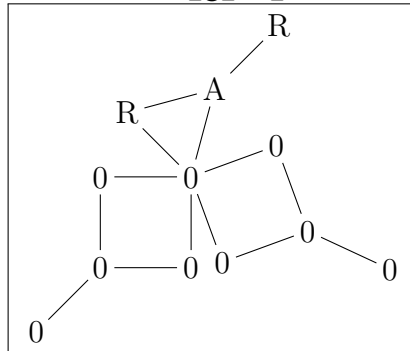


File: out/041\_g\_54\_11310100

### 0.3.9 $p_{\{0,8\}}$

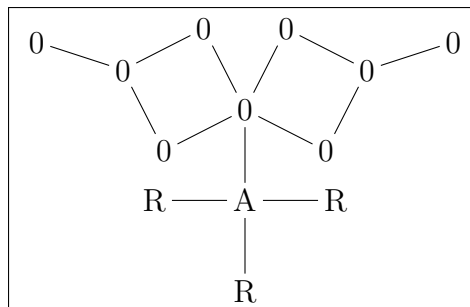


File: out/042\_g\_70\_10300000

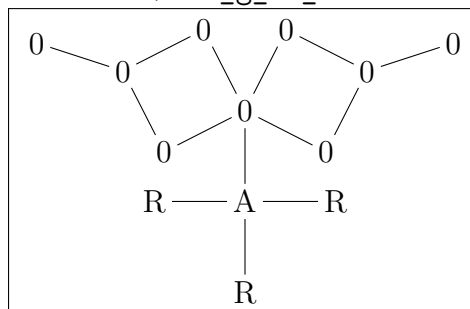


File: out/042\_g\_70\_11310100

### 0.3.10 $p_{\{0,9\}}$

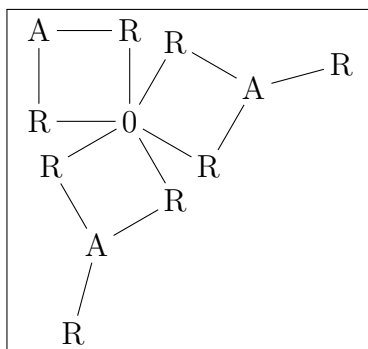


File: out/043\_g\_80\_10300000

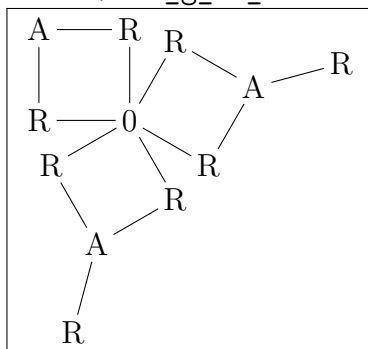


File: out/043\_g\_80\_11310100

### 0.3.11 $p_{\{0,10\}}$

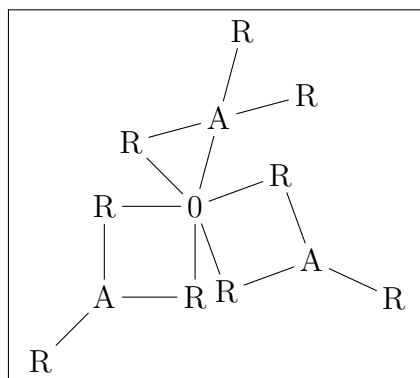


File: out/044\_g\_81\_10300000

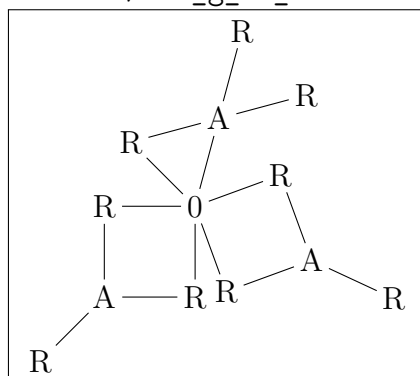


File: out/044\_g\_81\_11310100

### 0.3.12 $p_{\{0,11\}}$

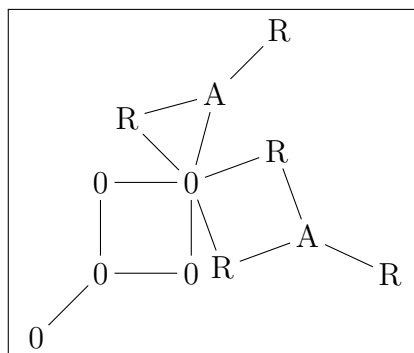


File: out/045\_g\_87\_10300000

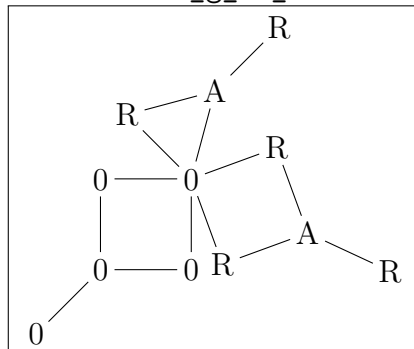


File: out/045\_g\_87\_11310100

### 0.3.13 $p_{\{0,12\}}$

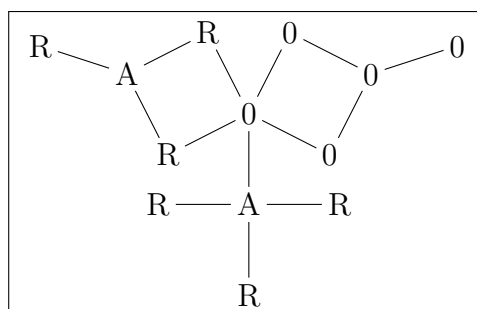


File: out/046\_g\_93\_10300000

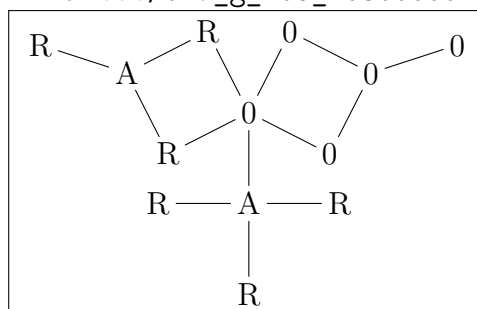


File: out/046\_g\_93\_11310100

### 0.3.14 $p_{\{0,13\}}$



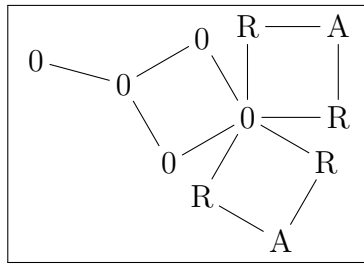
File: out/047\_g\_105\_10300000



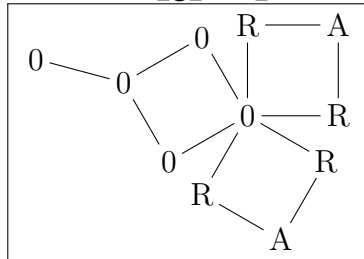
File: out/047\_g\_105\_11310100



### 0.3.15 $p_{\{0,14\}}$

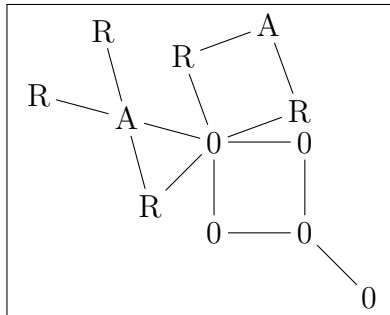


File: out/048\_g\_123\_10300000

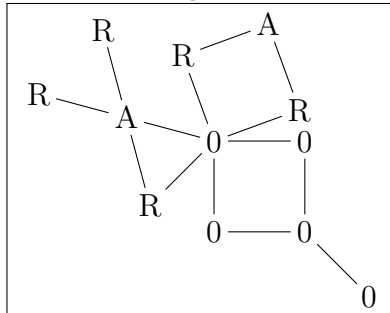


File: out/048\_g\_123\_11310100

### 0.3.16 $p_{\{0,15\}}$

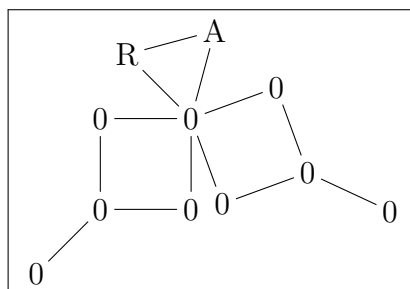


File: out/049\_g\_129\_10300000

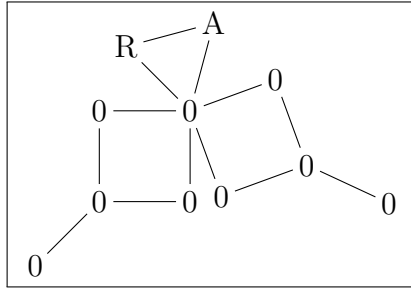


File: out/049\_g\_129\_11310100

### 0.3.17 $p_{\{0,16\}}$

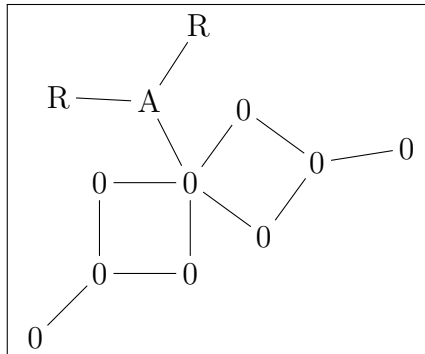


File: out/050\_g\_131\_10300000

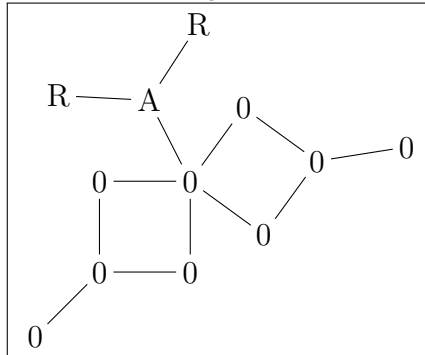


File: out/050\_g\_131\_11310100

0.3.18  $p_{\{0,17\}}$

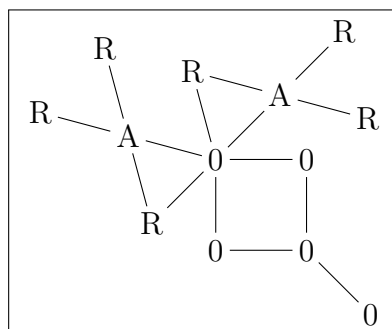


File: out/051\_g\_133\_10300000

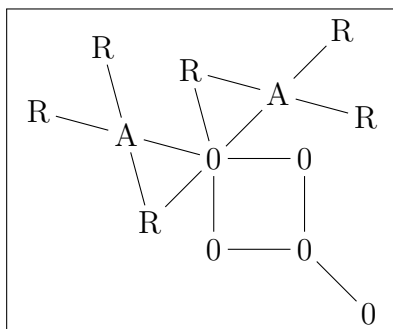


File: out/051\_g\_133\_11310100

0.3.19  $p_{\{0,18\}}$

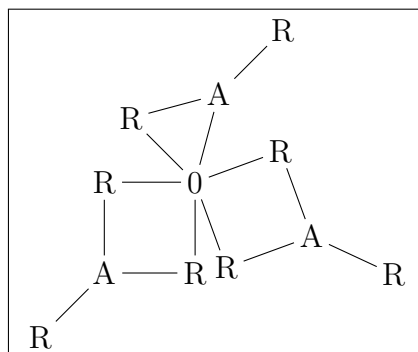


File: out/052\_g\_149\_10300000

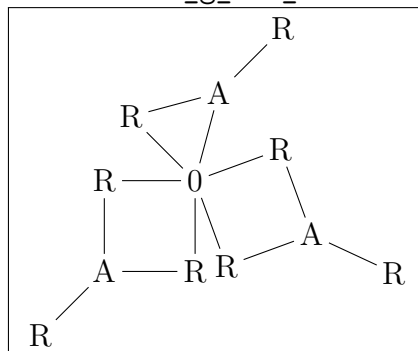


File: out/052\_g\_149\_11310100

### 0.3.20 $p_{\{0,19\}}$

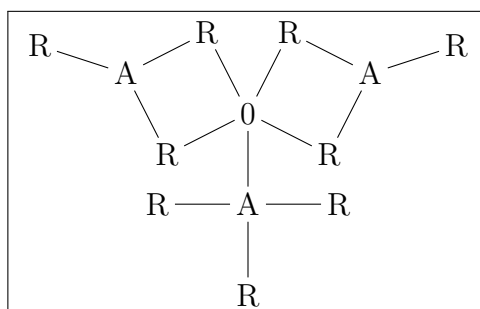


File: out/053\_g\_153\_10300000

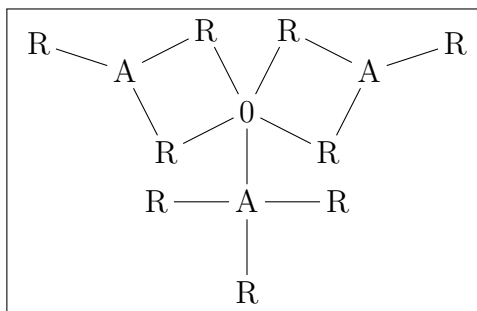


File: out/053\_g\_153\_11310100

### 0.3.21 $p_{\{0,20\}}$

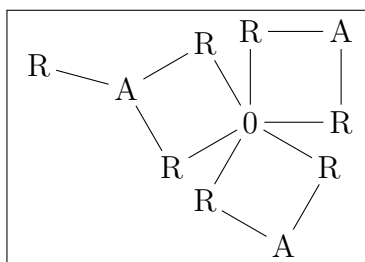


File: out/054\_g\_159\_10300000

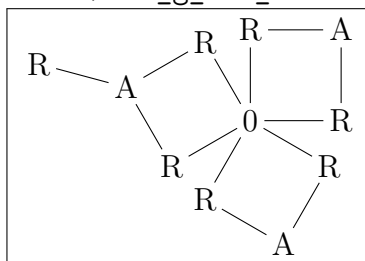


File: out/054\_g\_159\_11310100

### 0.3.22 $p_{\{0,21\}}$

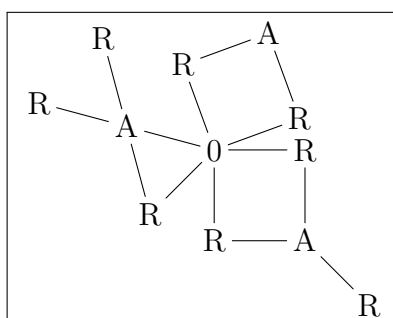


File: out/055\_g\_165\_10300000

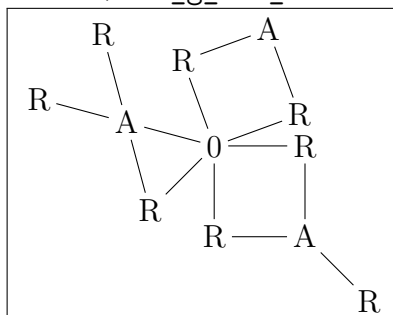


File: out/055\_g\_165\_11310100

### 0.3.23 $p_{\{0,22\}}$

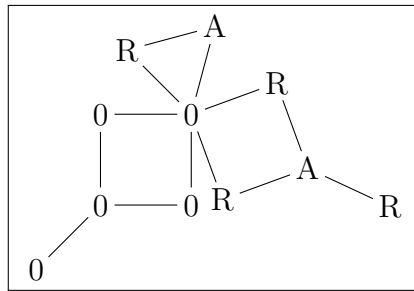


File: out/056\_g\_171\_10300000

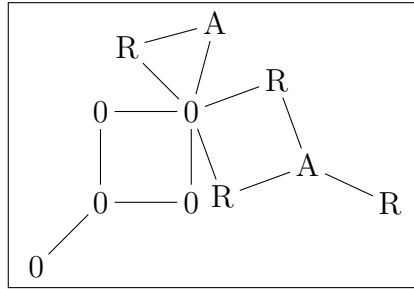


File: out/056\_g\_171\_11310100

### 0.3.24 $p_{\{0,23\}}$

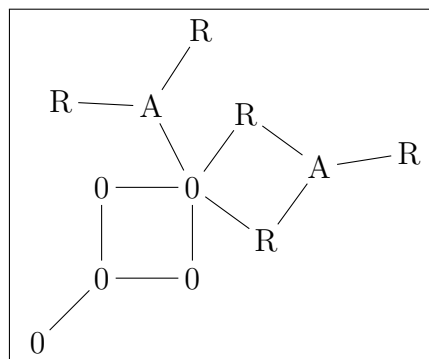


File: out/057\_g\_177\_10300000

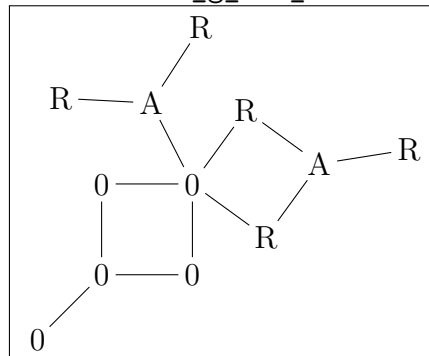


File: out/057\_g\_177\_11310100

### 0.3.25 $p_{\{0,24\}}$

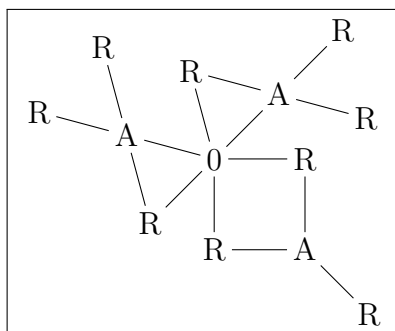


File: out/058\_g\_189\_10300000

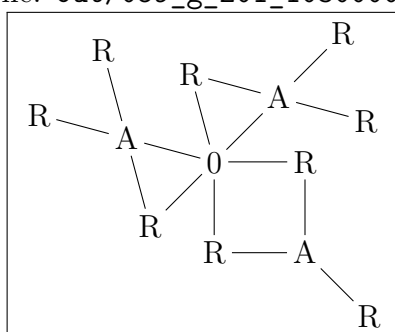


File: out/058\_g\_189\_11310100

### 0.3.26 $p_{\{0,25\}}$

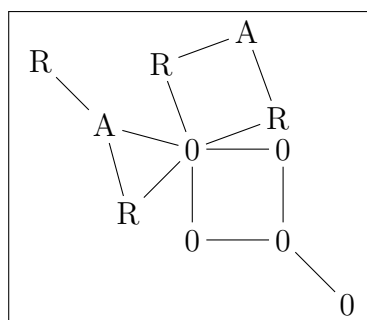


File: out/059\_g\_201\_10300000

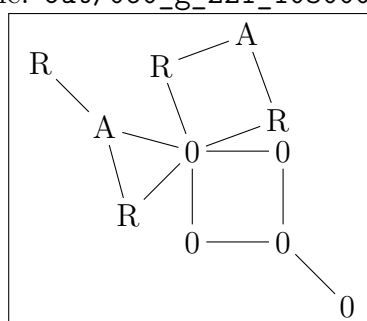


File: out/059\_g\_201\_11310100

### 0.3.27 $p_{\{0,26\}}$

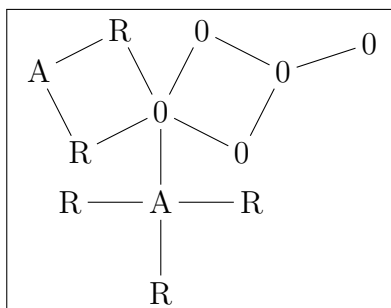


File: out/060\_g\_221\_10300000

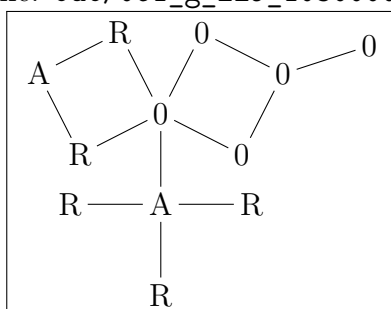


File: out/060\_g\_221\_11310100

### 0.3.28 $p_{\{0,27\}}$

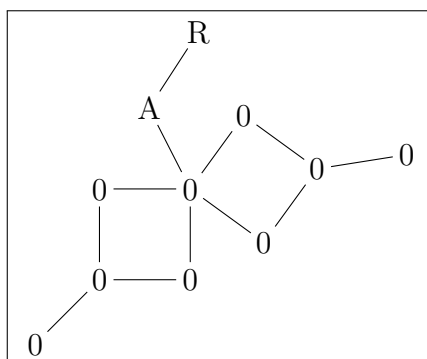


File: out/061\_g\_229\_10300000

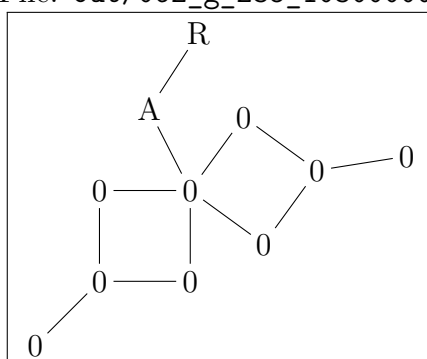


File: out/061\_g\_229\_11310100

### 0.3.29 $p_{\{0,28\}}$

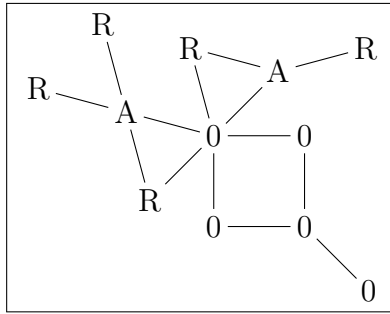


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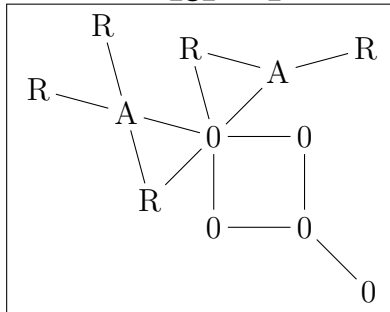


File: out/062\_g\_235\_11310100

### 0.3.30 $p_{\{0,29\}}$

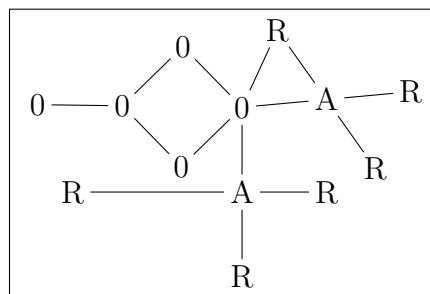


File: out/063\_g\_239\_10300000

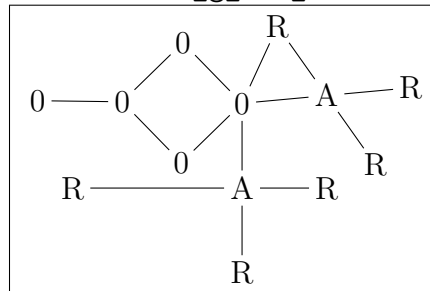


File: out/063\_g\_239\_11310100

### 0.3.31 $p_{\{0,30\}}$



File: out/064\_g\_259\_10300000



File: out/064\_g\_259\_11310100

## 0.4 Flow Solutions, id 0