```
0 Start    0
    |
1 Start 43 1
```

(a)

```
0 Start           0
    |
1 Start 43        1
        |
2       43 yes 44 2
```

(b)

```
0 Start          0
    |
1 Start 43       1
        |
2       43 no 45 2
```

(c)

```
0 Start                  0
    |
1 Start 43               1
        |
2       43 yes 44        2
               |
3              44 yes 19 3
```

(d)

```
0 Start                  0
    |
1 Start 43               1
        |
2       43 no 45         2
              |
3             45 yes 46 3
```

(e)

```
0 Start                 0
    |
1 Start 43              1
        |
2       43 yes 44       2
               |
3              44 no 51 3
```

(f)

```
0 Start                0
    |
1 Start 43             1
        |
2       43 no 45       2
              |
3             45 no 47 3
```

(g)

Figure 1

```
0                 parallel processing 0
                     |         |
1 concurrency #cy parallel processing 1

(a)

0                                                parallel processing 0
                                                    |         |
1 concurrency                                #cy parallel processing 1
       |                                      |
2 concurrency ... info_about_concurrency ... #cy                     2

(b)
```

Figure 3

```
0 guest name Mr Smith #name addr London #addr          room 2 #room            #guest 0
    |    |              |    |            |             |       |                |
1 guest name          #name addr        #addr tel #tel room   #room diet #diet #guest 1
```

(a)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room                     #guest 0
    |    |              |    |            |             |       |                         |
1 guest name          #name addr        #addr tel #tel room   #room diet          #diet #guest 1
                                                                     |              |
2                                                                   diet standard #diet        2
```

(b)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room                       #guest 0
    |    |              |    |            |             |       |                           |
1 guest name          #name addr        #addr tel #tel room   #room diet            #diet #guest 1
                                                                     |                |
2                                                                   diet vegetarian #diet        2
```

(c)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room                        #guest 0
    |    |              |    |            |             |       |                            |
1 guest name          #name addr        #addr tel #tel room   #room diet             #diet #guest 1
                                                                     |                 |
2                                                                   diet gluten free #diet        2
```

(d)

Figure 5

```
0 guest name Mr Smith #name addr London #addr          room 2 #room diet gluten free #diet #guest 0
    |    |              |    |            |             |       |    |      |     |     |     |
1 guest name           #name addr        #addr tel #tel room   #room diet   |     |   #diet #guest 1
                                                                     |      |     |     |
2                                                                    diet gluten free #diet        2
```

Figure 6

```
0 guest name Mr Smith #name addr London #addr          room 2 #room diet anti-candida #diet #guest 0
    |    |              |    |            |             |       |    |                  |     |
1 guest name          #name addr        #addr tel #tel room   #room diet              #diet #guest 1
```

(a)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room diet anti-candida #diet #guest 0
    |    |              |    |            |             |       |    |                  |     |
1 guest name          #name addr        #addr tel #tel room   #room diet              #diet #guest 1
                                                                     |                  |
2                                                                   diet standard     #diet        2
```

(b)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room diet anti-candida #diet #guest 0
    |    |              |    |            |             |       |    |                  |     |
1 guest name          #name addr        #addr tel #tel room   #room diet              #diet #guest 1
                                                                     |                  |
2                                                                   diet vegetarian   #diet        2
```

(c)

```
0 guest name Mr Smith #name addr London #addr          room 2 #room diet anti-candida #diet #guest 0
    |    |              |    |            |             |       |    |                  |     |
1 guest name          #name addr        #addr tel #tel room   #room diet              #diet #guest 1
                                                                     |                  |
2                                                                   diet gluten free  #diet        2
```

(d)

Figure 7

```
0    bd       Twy                                                         0
     |         |
1    |     ne Twy #ne                                                     1
     |     |       |
2 ve |  dn ne     #ne se                 #se fn           #fn #dn     #ve 2
  |  |  |             |                   |  |             |   |       |
3 ve bd dn            se ws #ws fs bk cp #se fn cy #cy ls #fn #dn #bd #ve 3
```

(a)

```
0    bd       Twy                                                            0
     |         |
1    |     ne Twy #ne                                                        1
     |     |       |
2 ve |  dn ne     #ne se                 #se fn              #fn #dn     #ve 2
  |  |  |             |                   |  |                |   |       |
3 |  bd |             |                   |  |  cy ys #cy     |   |  #bd  |  3
  |  |  |             |                   |  |  |      |      |   |   |   |
4 ve bd dn            se ws #ws fs bk cp #se fn cy    #cy ls #fn #dn #bd #ve 4
```

(b)

```
0    bd          Twy                                                                   0
     |            |
1    |        ne Twy #ne                                                               1
     |        |       |
2 ve |     dn ne     #ne se                    #se fn              #fn #dn         #ve 2
  |  |      |            |                      |  |                |   |           |
3 ve bd    dn            se ws    #ws fs bk cp #se fn cy    #cy ls #fn #dn     #bd #ve 3
     |      |               |      |               |  |      |      |   |       |
4    bd sw dn               ws pd #ws              fn cy ys #cy    #fn #dn #sw #bd     4
```

(c)

```
0    bd          Twy                                                                   0
     |            |
1    |        ne Twy #ne                                                               1
     |        |       |
2 ve |     dn ne     #ne se                    #se fn              #fn #dn         #ve 2
  |  |      |            |                      |  |                |   |           |
3 ve bd    dn            se ws    #ws fs bk cp #se fn cy    #cy ls #fn #dn     #bd #ve 3
     |      |               |      |               |  |      |      |   |       |
4    bd pn dn               ws sy #ws              fn cy no #cy    #fn #dn #pn #bd     4
```

(d)

```
0    bd          Twy                                                                   0
     |            |
1    |        ne Twy #ne                                                               1
     |        |       |
2 ve |     dn ne     #ne se                    #se fn              #fn #dn         #ve 2
  |  |      |            |                      |  |                |   |           |
3 ve bd    dn            se ws    #ws fs bk cp #se fn cy    #cy ls #fn #dn     #bd #ve 3
     |      |               |      |               |  |      |      |   |       |
4    bd ee dn               ws le #ws              fn cy ys #cy    #fn #dn #ee #bd     4
```

(e)

Figure 9

```
0       pn       Twy                                                                   0
        |         |
1       |     ne Twy #ne                                                               1
        |     |       |
2 ve    |  dn ne     #ne se                    #se fn              #fn #dn         #ve 2
  |     |  |             |                      |  |                |   |           |
3 |  bd pn dn            |  ws sy #ws           |  fn cy no #cy    #fn #dn #pn #bd  |  3
  |  |     |             |  |      |            |  |  |      |      |   |       |   |
4 ve bd    dn            se ws    #ws fs bk cp #se fn cy    #cy ls #fn #dn     #bd #ve 4
```

(a)

```
0       pn       Twy                                                                   0
        |         |
1       |     ne Twy #ne                                                               1
        |     |   |   |
2 ve    |  dn ne  |  #ne se                    #se fn              #fn #dn         #ve 2
  |     |  |      |      |                      |  |                |   |           |
3 |  bd pn dn     |      |  ws sy #ws           |  fn cy no #cy    #fn #dn #pn #bd  |  3
  |  |     |      |      |  |      |            |  |  |      |      |   |       |   |
4 ve bd    dn     |      se ws    #ws fs bk cp #se fn cy    #cy ls #fn #dn     #bd #ve 4
     |            |
5    bd          Twy                                                                   5
```

(b)

Figure 10

```
0    bd       Twy                               cy no #cy                    0
     |         |                                |      |
1    |     ne Twy #ne                           |      |                     1
     |     |       |                            |      |
2 ve |  dn ne     #ne se                 #se fn |      |     #fn #dn     #ve 2
  |  |  |             |                   |  |  |      |      |   |       |
3 ve bd dn            se ws #ws fs bk cp #se fn cy ys #cy ls #fn #dn #bd #ve 3
```

(a)

```
0    bd          Twy                                  cy no #cy                        0
     |            |                                   |      |
1    |        ne Twy #ne                              |      |                         1
     |        |       |                               |      |
2 ve |     dn ne     #ne se                     #se fn |      |     #fn #dn         #ve 2
  |  |     |             |                      |  |  |      |      |   |           |
3 ve bd    dn            se ws    #ws fs bk cp #se fn cy ys #cy ls #fn #dn     #bd #ve 3
     |     |                |      |                                    |       |
4    bd sw dn               ws pd #ws                                  #dn #sw #bd     4
```

(b)

```
0    bd          Twy                                  cy no #cy                        0
     |            |                                   |      |
1    |        ne Twy #ne                              |      |                         1
     |        |       |                               |      |
2 ve |     dn ne     #ne se                     #se fn |      |     #fn #dn         #ve 2
  |  |     |             |                      |  |  |      |      |   |           |
3 ve bd    dn            se ws    #ws fs bk cp #se fn cy ys #cy ls #fn #dn     #bd #ve 3
     |     |                |      |                                    |       |
4    bd ee dn               ws le #ws                                  #dn #ee #bd     4
```

(c)

Figure 11

```
0 A  small circle inside large triangle ; B large circle above small triangle # 0
       |            |      |            |     |            |     |            |
1 C2 small square inside large ellipse  ; E large square above small ellipse  # 1
```

Figure 13

```
0       phone_alarm_call 0
               |
1 alarm phone_alarm_call 1
```

(a)

```
0                phone_alarm_call 0
                        |
1           alarm phone_alarm_call 1
              |
2 burglary alarm                  2
```

(b)

```
0                  phone_alarm_call 0
                          |
1             alarm phone_alarm_call 1
                |
2 earthquake alarm                  2
```

(c)

Figure 16

```
0                  phone_alarm_call radio_earthquake_announcement 0
                          |                       |
1            alarm phone_alarm_call               |               1
               |                                  |
2 earthquake alarm                                |               2
      |                                           |
3 earthquake                        radio_earthquake_announcement 3
```

(a)

```
0 phone_alarm_call radio_earthquake_announcement 0
                                 |
1 earthquake       radio_earthquake_announcement 1
```

(b)

```
0       phone_alarm_call radio_earthquake_announcement 0
               |
1 alarm phone_alarm_call                               1
```

(c)

```
0                phone_alarm_call radio_earthquake_announcement 0
                        |
1          alarm phone_alarm_call                               1
             |
2 burglary alarm                                                2
```

(d)

```
0                  phone_alarm_call radio_earthquake_announcement 0
                          |
1            alarm phone_alarm_call                               1
               |
2 earthquake alarm                                                2
```

(e)

Figure 17

```
0                phone_alarm_call radio_earthquake_announcement 0
                        |                       |
1          alarm phone_alarm_call               |               1
             |                                  |
2 burglary alarm                                |               2
                                                |
3 earthquake                      radio_earthquake_announcement 3

(a)

0                  phone_alarm_call radio_earthquake_announcement 0
                          |                       |
1            alarm phone_alarm_call               |               1
               |                                  |
2 earthquake alarm                                |               2
      |                                           |
3 earthquake                        radio_earthquake_announcement 3

4 burglary                                                        4

(b)
```

Figure 18