```
0   c   m p u x t a r 0
    |   | | |   |   |
1 4 c o m p u   t e r 1
```

(a)

```
0   c     m p u x t a r 0
    |     |   |   |   |
1 5 c o m m   u   t e r 1
```

(b)

```
0   c   m p u x t a r 0
    |   |   |   |   |
1 5 c o m m u   t e r 1
```

(c)

```
0 c m p u x t a r           0
      |       | |
1 30  p       a r a f f i n 1
```

(d)

Figure 1

```
0           pt Jn #pt         1 pr 2 rd 3    4 ys 5 ys 6    7 fd 8 ys 9 0
            |      |          |    | |  |    | |  | |  |    | |  |    |
1 de    #de pt    #pt R       1    2 |  3    4 |  5 |  6    7 |  8    9 1
  |      |            |       |    | |  |    | |  | |  |    | |  |    |
2 |      |            R    fr 1    2 rd 3    | |  | |  |    7 fd 8    | 2
  |      |            |    |  |    |    |    | |  | |  |    |    |    |
3 |      |            R fs fr 1    |    |    4 ys 5 ys 6    |    |    9 3
  |      |            | |     |    |    |    |         |    |    |    |
4 de ia #de           R fs    1 nl 2    3 nl 4         6 no 7    8 no 9 4


0    10 nl 11 no 12 as 13 ry 14    15 hh 16 se 17                    0
     |  |  |  |  |  |  |  |  |     |  |  |  |  |
1    10 |  11 |  12 |  13 |  14    15 |  16 |  17    18      19    20 1
     |  |  |  |  |  |  |  |  |     |  |  |  |  |     |      |     |
2    |  |  |  |  |  |  |  |  |     15 hh 16 |  |     |      |     |  2
     |  |  |  |  |  |  |  |  |     |     |  |  |     |      |     |
3 ys 10 |  |  |  12 as 13 ry 14    |     16 se 17    |      |     |  3
     |  |  |  |  |           |     |           |     |      |     |
4    10 nl 11 no 12          14 nl 15          17 no 18 fls 19 ft 20 4
```

(a)

```
0           pt Jn #pt         1 pr 2 rd 3    4 ys 5 ys 6    7 fd 8 ys 9 0
            |      |          |    | |  |    | |  | |  |    | |  |    |
1 de    #de pt    #pt R       1    2 |  3    4 |  5 |  6    7 |  8    9 1
  |      |            |       |    | |  |    | |  | |  |    | |  |    |
2 |      |            R    fr 1    2 rd 3    | |  | |  |    7 fd 8    | 2
  |      |            |    |  |    |    |    | |  | |  |    |    |    |
3 |      |            R fs fr 1    |    |    4 ys 5 ys 6    |    |    9 3
  |      |            | |     |    |    |    |         |    |    |    |
4 de sx #de           R fs    1 nl 2    3 nl 4         6 no 7    8 no 9 4


0     10 nl 11 no 12 as 13 ry 14    15 hh 16 se 17                    0
      |  |  |  |  |  |  |  |  |     |  |  |  |  |
1     10 |  11 |  12 |  13 |  14    15 |  16 |  17    18    19     20 1
      |  |  |  |  |  |  |  |  |     |  |  |  |  |     |     |      |
2     |  |  |  |  |  |  |  |  |     15 hh 16 |  |     |     |      |  2
      |  |  |  |  |  |  |  |  |     |     |  |  |     |     |      |
3  ys 10 |  |  |  12 as 13 ry 14    |     16 se 17    |     |      |  3
      |  |  |  |  |           |     |           |     |     |      |
4     10 nl 11 no 12          14 rs 15          17 no 18 ss 19 smt 20 4
```

(b)

Figure 3

```
0 bird      Tweety                                                        0
   |          |
1  |   name Tweety #name                                                  1
   |    |            |
2 bird name        #name canfly wings feathers beak crop lays_eggs ... #bird 2
```

Figure 7

```
0           Susan       canfly                                             0
              |           |
1      name Susan #name   |                                                1
        |           |     |
2 bird name       #name canfly wings feathers beak crop lays_eggs ... #bird 2

(a)

0          Susan           canfly                        0
             |               |
1     name Susan #name       |                           1
       |           |         |
2 bat name       #name fur canfly eats_insects ... #bat 2

(b)
```

Figure 8

```
0 Start    yes    yes    no   no   no   yes   no   0
    |       |      |     |    |    |     |    |
1 Start 43  |      |     |    |    |     |    |    1
        |   |      |     |    |    |     |    |
2       43 yes 44  |     |    |    |     |    |    2
               |   |     |    |    |     |    |
3              44 yes 19 |    |    |     |    |    3
                      |  |    |    |     |    |
4                     19 no 1 |    |     |    |    4
                            | |    |     |    |
5                           1 no 3 |     |    |    5
                                 | |     |    |
6                                3 no 7  |    |    6
                                      |  |    |
7                                     7 yes 8 |    7
                                            | |
8                                           8 no 9 8
```

Figure 11

```
0 Start 43 yes 44                     7 yes 8 no   0
    |   |   |  |                      |  |  |  |
1   |   |   |  |                      7 yes 8 |    1
    |   |   |  |                      |     |  |
2   |   |   |  |                 3 no 7     |  |    2
    |   |   |  |                 |          |  |
3   |   |   |  |            1 no 3          |  |    3
    |   |   |  |            |               |  |
4 Start 43  |  |            |               |  |    4
        |   |  |            |               |  |
5       43 yes 44           |               |  |    5
               |            |               |  |
6              44 yes 19    |               |  |    6
                      |     |               |  |
7                     19 no 1               |  |    7
                                            |  |
8                                           8 no 9 8
```

Figure 12

```
0   TRUE      0
     |
1 S TRUE 1 #S 1
```

(a)

```
0 not   TRUE        #not 0
   |     |            |
1  |  S TRUE 1 #S     |   1
   |  |      | |      |
2 not S      1 #S 0 #not 2
```

(b)

Figure 14

```
0   IF1                 IF2                                                          0
     |                   |
1 1 IF1 2             7 IF2 8                             16 THEN1 17                1
  |     |             |     |                             |    |   |
2 1     2 3     4 5 6 7     8 9 10 11     12 13     14 15 16   |   17 18 19       20 2
          |     |                  |      |  |      |          |         |        |
3         3 IF3 4                  11 IF4 12 |      |        THEN1       |        |  3
             |                         |     |      |                    |        |
4           IF3                       IF4    13 IF5 14                   19 THEN2 20 4
```

Figure 16