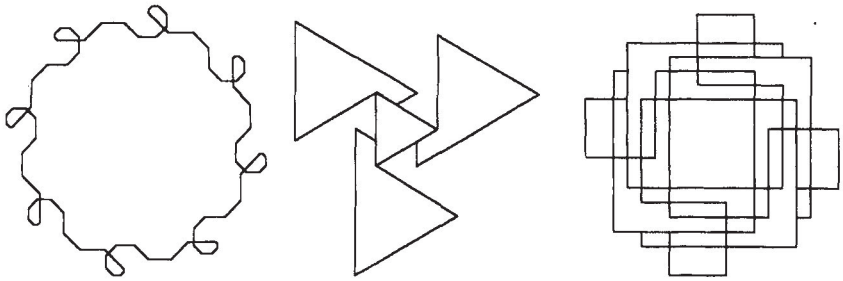

ANGLE = 45
MAX = 11
LIST = [8 9]

ANGLE = 120
MAX = 6
LIST = [1 3]

ANGLE = 90
MAX = 11
LIST = [3 4 5]

Figure 1.22
Generalized spirolaterals.

these figures we need to indicate the direction of the turtle's turning at each vertex. The corresponding GSPIRO procedure takes four inputs: a side length (the length of the shortest side in the figure), an angle through which the turtle turns left or right at each vertex, a number MAX telling how many steps are in the basic loop, and a list of numbers specifying the vertices at which the turtle should turn left. If the vertex number is a member of the list, then the turtle turns left at the vertex; otherwise the turtle turns right. (The MEMBER command is used to tell whether or not something is a member of a list.) Thus, the GSPIRO procedure is

```
TO GSPIRO (SIDE, ANGLE, MAX, LIST)
   REPEAT FOREVER
      SUBGSPIRO (SIDE, ANGLE, MAX, LIST)

TO SUBGSPIRO (SIDE, ANGLE, MAX, LIST)
   COUNT ← 1
   REPEAT
      FORWARD SIDE * COUNT
      IF MEMBER (COUNT, LIST)
         THEN LEFT ANGLE
         ELSE RIGHT ANGLE
      COUNT ← COUNT + 1
   UNTIL COUNT > MAX
```