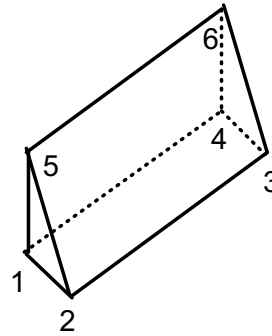


### Exercise 6.1:

The surface of the object on the right shall be modelled with triangles. Define suitable coordinates for the six vertices and specify the triangles based on the vertices. Make sure that the orientation of each triangle is chosen correctly. The vertices of a triangle should occur in anticlockwise order when looking at the surface from outside the object. The object itself is two units high, one unit in depth and five units wide. Write a Java 3D program to model and display the object. Use the technique that was explained in section 6.4.



### Solution (sketch):

| Point no. | Coordinates | Triangles |
|-----------|-------------|-----------|
| 1         | (0,0,0)     | 1,2,5     |
| 2         | (1,0,0)     | 2,3,5     |
| 3         | (1,0,-5)    | 3,6,5     |
| 4         | (0,0,-5)    | 3,4,6     |
| 5         | (0,1,0)     | 1,4,3     |
| 6         | (0,1,-5)    | 1,3,2     |
|           |             | 1,5,6     |
|           |             | 1,6,4     |

The program `MyTent.java` shows the object (reduced to a fifth of the original size).