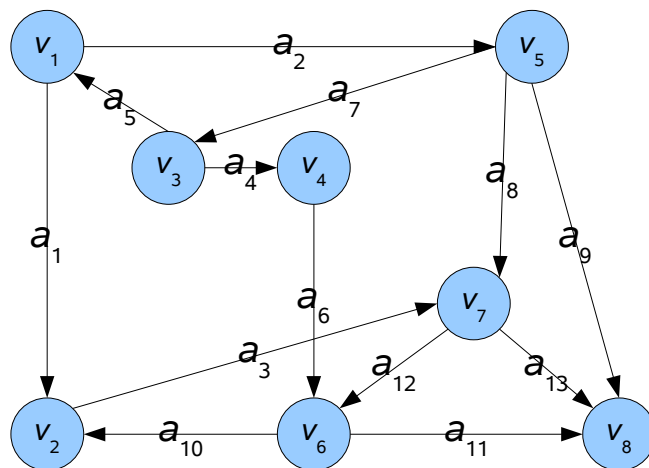


# 「グラフと組合せ」課題 6(解答例)

2008/6/2

## 1 グラフの Java プログラム

次のグラフを表す Java クラス example1/Main を作成しなさい。



```
/**
 * グラフの作成
 */
private void mkGraph(){
    graphExample1 = new graphLib.Graph("Example1");
    //頂点の生成
    graphLib.Vertex vertexes[] = new graphLib.Vertex[n];
    for(int i=0; i<n; i++){
        vertexes[i] = new graphLib.Vertex(String.valueOf(i+1));
        graphExample1.addVertex(vertexes[i]);
    }
    //頂点の表示座標を設定
    vertexes[0].setPoint(100.,100.);
    vertexes[1].setPoint(100.,400.);
    vertexes[2].setPoint(200.,200.);
    vertexes[3].setPoint(300.,200.);
    vertexes[4].setPoint(450.,100.);
    vertexes[5].setPoint(300.,400.);
    vertexes[6].setPoint(400.,300.);
    vertexes[7].setPoint(500.,400.);
    //弧の定義
    graphExample1.addArc(vertexes[0],vertexes[1],"1");
    graphExample1.addArc(vertexes[0],vertexes[4],"2");
    graphExample1.addArc(vertexes[1],vertexes[6],"3");
    graphExample1.addArc(vertexes[2],vertexes[3],"4");
    graphExample1.addArc(vertexes[2],vertexes[0],"5");
    graphExample1.addArc(vertexes[3],vertexes[5],"6");
    graphExample1.addArc(vertexes[4],vertexes[2],"7");
    graphExample1.addArc(vertexes[4],vertexes[6],"8");
    graphExample1.addArc(vertexes[4],vertexes[7],"9");
}
```

```
graphExample1.addArc(vertices[5],vertices[1],"10");  
graphExample1.addArc(vertices[5],vertices[7],"11");  
graphExample1.addArc(vertices[6],vertices[5],"12");  
graphExample1.addArc(vertices[6],vertices[7],"13");
```

```
}
```

