（又称｜简称｜记作｜简记）

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| 图：有序三元组 | | | | | | | | | | | | | | |
| ┣ | （图的）顶点集（|||） | | | | | | | | | | | | | |
| ┃ | ┗ | （图的）顶点数（||）： | | | | | | | | | | | | |
| ┃ | ┣ | （图的）顶点（节点、结点||）：的元素 | | | | | | | | | | | | |
| ┃ |  | ┣ | （顶点的）度（次数||）：关联于顶点的边的数目。在有向图中， | | | | | | | | | | | |
| ┃ |  | ┣ | 有向图（顶点的）入度（||）：进入顶点的边的数目（从顶点引入的边的数目） | | | | | | | | | | | |
| ┃ |  | ┣ | 有向图（顶点的）出度（||）：离开顶点的边的数目（从顶点引出的边的数目） | | | | | | | | | | | |
| ┃ |  | ┗ | 分类 | | | | | | | | | | | |
| ┃ |  |  | ┗ | 按度（？） | | | | | | | | | | |
| ┃ |  |  |  | ┗ | （顶点是）孤立的：顶点的度为0 | | | | | | | | | |
| ┣ | （图的）边集（|||） | | | | | | | | | | | | | |
| ┃ | ┣ | （图的）边数（||）： | | | | | | | | | | | | |
| ┃ | ┗ | （图的）边（||、无向图、无向图、）：的元素 | | | | | | | | | | | | |
| ┃ |  | ┣ | （边的）端点 | | | | | | | | | | | |
| ┃ |  | ┣ | 赋权图（边的）权：若将图的每一条边对应一个实数， | | | | | | | | | | | |
| ┃ |  | ┗ | 分类 | | | | | | | | | | | |
| ┃ |  |  | ┗ | 按可能的端点的数量（？） | | | | | | | | | | |
| ┃ |  |  |  | ┗ | 超边：连接任意顶点子集的边 | | | | | | | | | |
| ┃ |  |  |  |  | ┗ | 边：连接2个顶点的边 | | | | | | | | |
| ┃ |  |  |  |  |  | ┣ | 按有无方向（！） | | | | | | | |
| ┃ |  |  |  |  |  | ┃ | ┣ | 无向图无向边：（与中的无序偶对应的边） | | | | | | |
| ┃ |  |  |  |  |  | ┃ | ┗ | 有向图有向边（弧）：与中的有序偶对应的边 | | | | | | |
| ┃ |  |  |  |  |  | ┗ | 按端点关系（？） | | | | | | | |
| ┃ |  |  |  |  |  |  | ┗ | 自环（环）：2个端点为同一顶点的边 | | | | | | |
| ┣ | （从到的）通路（路径||）：顶点与边相互交错且的有限非空序列 | | | | | | | | | | | | | |
| ┃ | ┣ | （通路的）长度：通路中边的数目 | | | | | | | | | | | | |
| ┃ | ┣ | （通路的）子通路（子路径）：通路的一个连续子序列 | | | | | | | | | | | | |
| ┃ | ┗ | 分类 | | | | | | | | | | | | |
| ┃ |  | ┣ | 按边的数量和起点与终点关系（？） | | | | | | | | | | | |
| ┃ |  | ┃ | ┗ | 环：起点与终点重合且包含至少1条边的通路 | | | | | | | | | | |
| ┃ |  | ┃ |  | ┗ | 按边集与的关系 | | | | | | ┓ |  | | |
| ┃ |  | ┃ |  |  | ┗ | 巡回：经过的每边至少1次的闭通路 | | | | | ┓ |  | | |
| ┃ |  | ┣ | 按边是否重复（？） | | | | | | | | ┃ |  | | |
| ┃ |  | ┃ | ┗ | 道路（||）：边不重复的通路 | | | | | | | ┃ |  | | |
| ┃ |  | ┃ |  | ┣ | 按边集与的关系（？） | | | | | | ┃ |  | | |
| ┃ |  | ┃ |  | ┃ | ┗ | 欧拉道路：经过的每边正好1次的道路 | | | | | ┫ |  | | |
| ┃ |  | ┃ |  | ┃ |  | | 欧拉巡回：经过的每边正好1次的闭通路 | | | | | | | |
| ┃ |  | ┃ |  | ┗ | 按顶点是否重复（？） | | | | | | | | | |
| ┃ |  | ┃ |  |  | ┗ | 路径（路径是简单的、简单路径||）：顶点不重复的道路 | | | | | | | | |
| ┃ |  | ┃ |  |  |  | ┣ | 赋权图（路径的）权：是赋权图中从到的路径， | | | | | | | |
| ┃ |  | ┃ |  |  |  | ┣ | 赋权图（从到的）最短路：在赋权图中，从顶点到顶点的具有最小权的路 | | | | | | | |
| ┃ |  | ┃ |  |  |  | ┃ | 按顶点是否重复（？） | | | | | | | |
| ┃ |  | ┃ |  |  |  | ┃ | ┗ | （的）哈密顿路径（|路径）：经过的每个顶点正好1次的路径 | | | | | ┓ |  |
| ┃ |  | ┃ |  |  |  | ┗ | 按起点与终点关系（？） | | | | | | ┃ |  |
| ┃ |  | ┃ |  |  |  |  | ┗ | 圈（环是简单的）：起点与终点重合的路径 | | | | | ┫ |  |
| ┃ |  | ┃ |  |  |  |  |  | | 哈密顿圈（圈）：经过的每个顶点正好1次的圈 | | | | | |
| ┃ |  | ┃ |  |  |  |  |  | | ┗ | 赋权图最佳圈：权最小的哈密顿圈 | | | | |
| ┃ |  | ┣ | 按顶点集与的关系和起点与终点关系（？） | | | | | | | | | | | |
|  |  |  | ┗ | 赋权图最佳推销员回路：经过每个顶点至少1次的权最小的闭通路 | | | | | | | | | | |
|  |  |  |  |  |  |  |  | | | | | | | |
| ┣ | （图的）关联函数： | | | | | | | | | | | | | |
| ┣ | （图的）阶：图的顶点数 | | | | | | | | | | | | | |
| ┣ | （图的）重数：重复次数最多的边的重复次数 | | | | | | | | | | | | | |
| ┣ | 关系 | | | | | | | | | | | | | |
| ┃ | ┣ | 顶点与顶点（？） | | | | | | | | | | | | |
| ┃ | ┃ | ┗ | （是从经过）可达的（||有向图）：从顶点到顶点存在1条路径 | | | | | | | | | | | |
| ┃ | ┃ |  | ┣ | （顶点和顶点）相邻：有边联结2个顶点、 | | | | | | | | | | |
| ┃ | ┃ |  | ┗ | （顶点）邻接于（顶点）：是图中的1条边。在无向图中，邻接关系是对称的；在有向图中，邻接关系不是对称的 | | | | | | | | | | |
| ┃ | ┣ | 边与边（？） | | | | | | | | | | | | |
| ┃ | ┃ | ┣ | 重边：联结同1对顶点的边 | | | | | | | | | | | |
| ┃ | ┃ | ┗ | 相邻的边：有1个公共端点的边 | | | | | | | | | | | |
| ┃ | ┣ | 顶点与边（？） | | | | | | | | | | | | |
| ┃ | ┃ | ┗ | 互相关联：边和它的端点称为互相关联的 | | | | | | | | | | | |
| ┃ | ┃ |  | ┣ | 无向图（与顶点和顶点）关联： 是中的1条边 | | | | | | | | | | |
| ┃ | ┃ |  | ┣ | 有向图（）射入或进入（顶点）：是中的1条边 | | | | | | | | | | |
| ┃ | ┃ |  | ┗ | 有向图（）射出或离开（顶点）：是中的1条边 | | | | | | | | | | |
| ┃ | ┣ | 图与图（？） | | | | | | | | | | | | |
| ┃ | ┃ |  | 按点集和边集的关系（？） | | | | | | | | | | | |
| ┃ | ┃ |  | ┗ | （是的）子图：。 | | | | | | | | | | |
| ┃ | ┃ |  |  | ┣ | （是的）生成子图（支撑子图）： | | | | | | | | | |
| ┃ | ┃ |  |  | ┃ | ┗ | 按边的数量（？） | | | | | | | | |
| ┃ | ┃ |  |  | ┃ |  | ┗ | 生成树 | | | | | | | |
| ┃ | ┃ |  |  | ┃ |  |  | ┣ | 赋权图最小生成树：一个图的权最小的生成树 | | | | | | |
| ┃ | ┃ |  |  | ┃ |  |  | ┗ | 赋权图最大生成树：一个图的权最大的生成树 | | | | | | |
| ┃ | ┃ |  |  | ┣ | （是的）导出子图： | | | | | | | | | |
| ┃ | ┃ |  |  | ┣ | （的）由导出的子图（关于的导出子图||）： | | | | | | | | | |
| ┃ | ┃ |  |  | ┗ | （的）由导出的子图（||）：，是的端点。不含有孤立点 | | | | | | | | | |
| ┣ | 分类 | | | | | | | | | | | | | |
| ┃ | ┗ | 超图：含有超边的图 | | | | | | | | | | | | |
| ┃ |  | ┗ | 按所有超边的端点数量（？） | | | | | | | | | | | |
| ┃ |  |  | ┗ | 图 | | | | | | | | | | |
|  |  |  |  | ┣ | 按顶点的数量和边的数量（！） | | | | | | | | | |
|  |  |  |  | ┃ | ┣ | （图是）无穷的：图有无穷多的顶点和/或边 | | | | | | | | |
|  |  |  |  | ┃ | ┃ | ┗ | 按每个顶点的度（？） | | | | | | | |
|  |  |  |  | ┃ | ┃ |  | ┗ | （图是）局部有穷的：每个顶点的度是有限的 | | | | | | |
|  |  |  |  | ┃ | ┗ | （图是）有穷的：否则是有穷的 | | | | | | | | |
|  |  |  |  | ┃ |  | ┗ | 按边的数量（？） | | | | | | | |
|  |  |  |  | ┃ |  |  | ┗ | 空图（秃图）：没有边的图 | | | | | | |
|  |  |  |  | ┣ | 按自环的数量和重边的数量（！） | | | | | | | | | |
|  |  |  |  | ┃ | ┣ | 多重图：有自环或有重边的图 | | | | | | | | |
|  |  |  |  | ┃ | ┗ | 简单图：没有自环且没有重边的图 | | | | | | | | |
|  |  |  |  | ┃ |  | ┗ | 按边的数量（？） | | | | | | | |
|  |  |  |  | ┃ |  |  | ┗ | （阶）完全图（完备图||）：所有顶点两两相邻的图（任意两顶点都相邻的图），为顶点的数目 | | | | | | |
|  |  |  |  | ┣ | 按所有边是否有方向（！） | | | | | | | | | |
|  |  |  |  | ┃ | ┣ | 无向图：每一条边都是无向边的图 | | | | | | | | |
|  |  |  |  | ┃ | ┣ | 有向图：每一条边都是有向边的图 | | | | | | | | |
|  |  |  |  | ┃ | ┗ | 混合图：既有无向边又有有向边的图 | | | | | | | | |
|  |  |  |  | ┣ | 按所有两个顶点是否可达（？） | | | | | | | | | |
|  |  |  |  | ┃ | ┗ | （连通图：任意2点均有路径的图。）  无向图（图是）连通的：每个顶点从所有其它顶点都是可达的  有向图（图是）强连通的：任意2个顶点互相可达 | | | | | | | | |
|  |  |  |  | ┃ |  | ┣ | 无向图（图的）一个连通分量：，满足从可达，， | | | | | | | |
|  |  |  |  | ┃ |  | ┣ | 按边的数量（？） | | | | | | | |
|  |  |  |  | ┃ |  | ┃ | ┗ | 树：无圈的连通图 | | | | | | |
|  |  |  |  | ┃ |  | ┣ | 按是否存在欧拉巡回（？） | | | | | | | |
|  |  |  |  | ┃ |  | ┃ | ┗ | 欧拉图：存在欧拉巡回的图 | | | | | | |
|  |  |  |  | ┃ |  | ┗ | 按是否存在哈密顿圈 | | | | | | | |
|  |  |  |  | ┃ |  |  | ┗ | 哈密顿图（图）：含哈密顿圈的图 | | | | | | |
|  |  |  |  | ┣ | 按所有由点集的子集导出的子图的边的数量 | | | | | | | | | |
|  |  |  |  | ┃ | ┗ | 二元图：，中任意2顶点不相邻，中任意2顶点不相邻 | | | | | | | | |
|  |  |  |  | ┃ |  | ┗ | 按边的数量（？） | | | | | | | |
|  |  |  |  | ┃ |  |  | ┗ | 完备二元图（||（、为、的顶点的数目））：中每一顶点都与中每一顶点相邻 | | | | | | |
|  |  |  |  | ┣ | 按是否赋权（？） | | | | | | | | | |
|  |  |  |  | ┃ | ┗ | 赋权图（加权图）：将图的每一条边对应一个实数 | | | | | | | | |
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