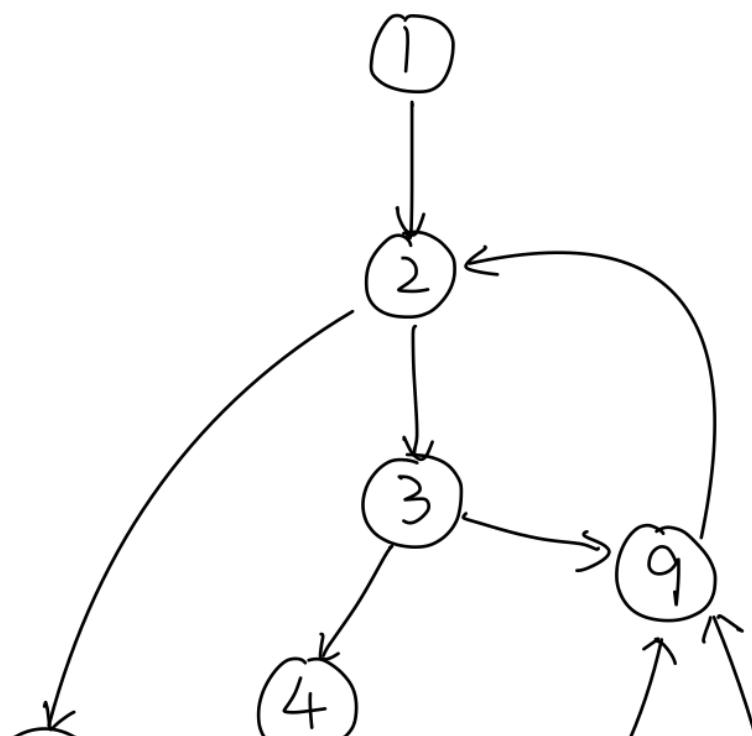
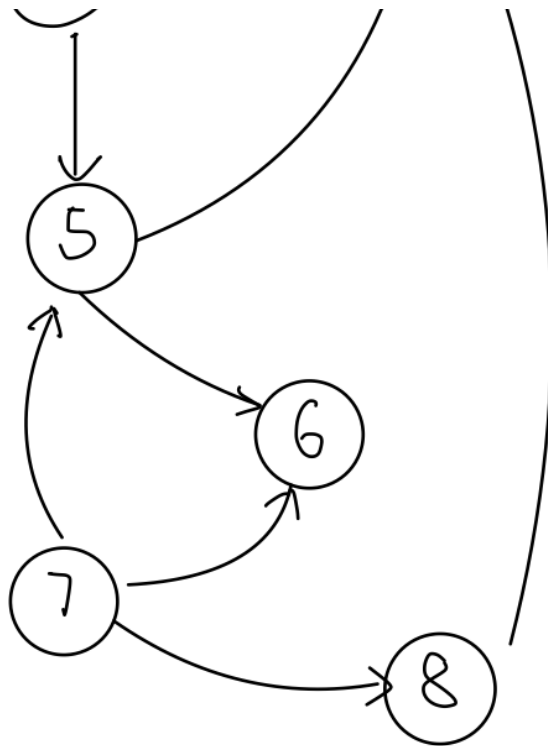


## 1. 画出控制流图

```
public static int patternIndex(String subject, String pattern) {  
    final int NOTFOUND = -1;  
    int iSub = 0, rtnIndex = NOTFOUND;  
    boolean isPat = false; ①  
    int subjectLen = subject.length();  
    int patternLen = pattern.length(); ②  
    while (isPat == false && iSub + patternLen - 1 < subjectLen) {  
        if (subject.charAt(iSub) == pattern.charAt(index:0)) { ③  
            rtnIndex = iSub; // Starting at zero ④  
            isPat = true; ⑤  
            for (int iPat = 1; iPat < patternLen; iPat++) { ⑥  
                if (subject.charAt(iSub + iPat) != pattern.charAt(iPat)) ⑦  
                {  
                    rtnIndex = NOTFOUND;  
                    isPat = false;  
                    break; // out of for loop  
                }  
            } ⑧  
            iSub++; ⑨  
        }  
    }  
    return (rtnIndex); ⑩  
}
```



⑩



## 2.找出图中主路径

[1,2,10]

[1,2,3,9]

[1,2,3,4,5,9]

[1,2,3,4,5,6,7,8,9]

[3,9,2,10]

[3,4,5,9,2,10]

[3,4,5,6,7,8,9,2,10]

[6,7,6]

[7,6,7]

[2,3,9,2]

[3,9,2,3]

[9,2,3,9]

[2,3,4,5,6,7,8,9,2]

[3,4,5,6,7,8,9,2,3]

[4,5,6,7,8,9,2,3,4]

[5,6,7,8,9,2,3,4,5]

[6,7,8,9,2,3,4,5,6]

[7,8,9,2,3,4,5,6,7]

[8,9,2,3,4,5,6,7,8]

[9,2,3,4,5,6,7,8,9]

### 3.找到测试用例,可以覆盖所有主路径

subject="",pattern="TJU" 路径为[1,2,10]

subject="AAAA",pattern="TJU" 路径为[1,2,3,9,2,3,9,2,10]

subject="TJU",pattern="T" 路径为[1,2,3,4,5,9,2,10]

subject="TTJU",pattern="TJU" 路径为[1,2,3,4,5,6,7,8,9,3,4,5,6,7,5,6,7,9,2,10]

subject="TTTT",pattern="TJU" 路径为[1,2,3,4,5,6,7,8,9,2,3,4,5,6,7,8,9,2,10]