

### 1. Command Line Inputs:

python3 DPLL.py mapcolor.cnf +UCH -t transcripts/results\_mapcolor.UCH.txt

<b>CNF File</b>	mapcolor.cnf
<b>Model Output:</b>	Q_Blue V_Blue T_Blue SA_Green WA_Blue NT_Red NSW_Red
<b># of DPLL Calls, no UCH</b>	36
<b># of DPLL Calls, with UCH</b>	22

### 2. Command Line Inputs:

python3 DPLL.py mapcolor.cnf Q\_Green +UCH -t transcripts/results\_mapcolor2.txt

<b>CNF File</b>	mapcolor.cnf
<b>Model Output:</b>	Q_Green V_Green T_Blue SA_Blue WA_Green NT_Red NSW_Red
<b># of DPLL Calls, no UCH</b>	171
<b># of DPLL Calls, with UCH</b>	33

### 3. Command Line Inputs:

python3 DPLL.py mapcolor.cnf Q\_Green V\_Blue +UCH -t transcripts/results\_mapcolor3.UCH.txt

<b>CNF File</b>	mapcolor.cnf
<b>Model Output:</b>	- MODEL WAS UNSATISFIABLE -
<b># of DPLL Calls, no UCH</b>	141
<b># of DPLL Calls, with UCH</b>	17

#### 4. Command Line Inputs:

```
python3 DPLL.py sammy.cnf O1Y O2W O3Y L1W L2Y L3B +UCH -t  
transcripts/results_sammy_scenarioA.UCH.txt
```

<b>CNF File</b>	sammy.cnf
<b>Model Output:</b>	C1B O1Y C2W O2W C3Y O3Y L2Y L1W L3B
<b># of DPLL Calls, no UCH</b>	34
<b># of DPLL Calls, with UCH</b>	19

#### 5. Command Line Inputs:

```
python3 DPLL.py sammy.cnf O1W O2Y O3W L1W L2B L3B +UCH -t  
transcripts/results_sammy_scenarioB.UCH.txt
```

<b>CNF File</b>	sammy.cnf
<b>Model Output:</b>	C1B O1W C2Y O2Y C3W O3W L1W L2B L3B
<b># of DPLL Calls, no UCH</b>	34
<b># of DPLL Calls, with UCH</b>	19

#### 6. Command Line Inputs:

```
python3 DPLL.py 3queens.cnf +UCH -t transcripts/3queens.UCH.txt
```

<b>CNF File</b>	3queens.cnf
<b>Model Output:</b>	- MODEL WAS UNSATISFIABLE -
<b># of DPLL Calls, no UCH</b>	37
<b># of DPLL Calls, with UCH</b>	25

### 7. Command Line Inputs:

python3 DPLL.py 4queens.cnf +UCH -t transcripts/4queens.UCH.txt

<b>CNF File</b>	4queens.cnf
<b>Model Output:</b>	Q12 Q24 Q31 Q43
<b># of DPLL Calls, no UCH</b>	29
<b># of DPLL Calls, with UCH</b>	17

### 8. Command Line Inputs:

python3 DPLL.py 5queens.cnf +UCH -t transcripts/5queens.UCH.txt

<b>CNF File</b>	5queens.cnf
<b>Model Output:</b>	Q12 Q24 Q31 Q43 Q55
<b># of DPLL Calls, no UCH</b>	46
<b># of DPLL Calls, with UCH</b>	26

### 9. Command Line Inputs:

python3 DPLL.py 6queens.cnf +UCH -t transcripts/6queens.UCH.txt

<b>CNF File</b>	6queens.cnf
<b>Model Output:</b>	Q12 Q24 Q36 Q41 Q53 Q65
<b># of DPLL Calls, no UCH</b>	119
<b># of DPLL Calls, with UCH</b>	47