Task 2

River Problem

River_facts.txt

(A1 Adult)

(A2 Adult)

(C1 Child)

(C2 Child)

(B1 Boat)

(preconds

(left A1)

(left A2)

(left C1)

(left C2)

(left B1)

)

(effects

(right A1) (right A2) (right C1) (right C2) (right B1)

)

River_ops.txt

(operator

moveAdultRight

(params

(<a> Adult) (<b> Boat))

(preconds

(left <a>) (left <b>))

(effects

(right <a>) (right <b>)(del left <a>) (del left <b>))

)

(operator

moveAdultLeft

(params

(<a> Adult) (<b> Boat))

(preconds

(right <a>) (right <b>))

(effects

(left <a>)(left <b>)(del right <a>) (del right <b>))

)

```
(operator

moveOneChildRight

(params

(<a> Child) (<b> Boat))

(preconds

(left  <a>) (left  <b>))

(effects

(right  <a>) (right  <b>)(del left  <a>) (del left  <b>)))
)


(operator

moveOneChildLeft

(params

(<a> Child) (<b> Boat))

(preconds

(right <a>) (right  <b>))

(effects

(left  <a>)(left  <b>)(del right  <a>) (del right  <b>))
)
```

```
(operator

moveBothChildRight


(params

(<a> Child)(<c> Child)(<b> Boat))


(preconds

(left <a>)(left <c>)(left <b>))


(effects

(right <a>)(right <c>)(right <b>)(del left <a>)(del left <c>)(del left <b>))

)


(operator

moveBothChildLeft


(params

(<a> Child)(<c> Child)(<b> Boat))


(preconds

(right <a>)(right <c>)(right <b>))


(effects

(left <a>)(left <c>)(left <b>)(del right <a>)(del right <c>)(del right <b>))

)
```

Output

```
vxt3869@omega:~/graphplan/graphplan                              —    □    ✕

goals at time 9:
  right_A1 right_A2 right_C1 right_C2 right_B1

Can't solve in 8 steps
time: 9, 10 facts and 5 exclusive pairs.
32 new nodes added.
goals at time 10:
  right_A1 right_A2 right_C1 right_C2 right_B1

1 moveBothChildRight_C1_C2_B1
2 moveOneChildLeft_C1_B1
3 moveAdultRight_A2_B1
4 moveOneChildLeft_C2_B1
5 moveBothChildRight_C1_C2_B1
6 moveOneChildLeft_C1_B1
7 moveAdultRight_A1_B1
8 moveOneChildLeft_C2_B1
9 moveBothChildRight_C1_C2_B1
40 entries in hash table, 57 hash hits, avg set size 5.
105 total set-creation steps (entries + hits + plan length - 1).
78 actions tried
  0.00 secs
[vxt3869@omega graphplan]$ |
```