# Table # initial

pots:
pot #0:
new:
all:

|       |    | $x_0$ | $x_1$ | $x_2$ | $x_3$ | $x_4$ | $x_5$ |
|-------|----|-------|-------|-------|-------|-------|-------|
| $x_2$ | 24 | a     | 4     | 1     | 0     | 0     | 0     |
| $x_3$ | 6  | 1     | b     | 0     | 1     | 0     | 0     |
| $x_4$ | 1  | -1    | 1     | 0     | 0     | 1     | 0     |
| $x_5$ | 2  | 0     | 1     | 0     | 0     | 0     | 1     |
| Ψ     | 0  | -5.0  | -4.0  | 0     | 0     | 0     | 0     |

Table #0

Moving out basis:  $x_2$  from line: 0

Moving to basis:  $x_0$ 

pots:
pot #0:
new:

symbol  $a:(4,\infty)$ 

all:

symbol  $a:(4,\infty)$ 

|       |                                | $x_0$ | $x_1$                         | $x_2$           | $x_3$ | $x_4$ | $x_5$ |
|-------|--------------------------------|-------|-------------------------------|-----------------|-------|-------|-------|
| $x_0$ | $\frac{24}{a}$                 | 1     | $\frac{4}{a}$                 | $\frac{1}{a}$   | 0     | 0     | 0     |
| $x_3$ | $6 - \frac{24}{a}$             | 0     | $b-\frac{4}{a}$               | $-\frac{1}{a}$  | 1     | 0     | 0     |
| $x_4$ | $\frac{1}{a}\left(a+24\right)$ | 0     | $\frac{1}{a}\left(a+4\right)$ | $\frac{1}{a}$   | 0     | 1     | 0     |
| $x_5$ | 2                              | 0     | 1                             | 0               | 0     | 0     | 1     |
| Ψ     | $\frac{120.0}{a}$              | 0     | $-4.0 + \frac{20.0}{a}$       | $\frac{5.0}{a}$ | 0     | 0     | 0     |

## Table #0.1

Moving out basis:  $x_3$  from line: 1

Moving to basis:  $x_1$ 

pots: pot #0: new: symbol  $b: [1, \infty)$ symbol  $a: (5, \infty)$  ab - 4 > 0 ab - 6a + 24b - 4 > 0 ab - 3a + 8 > 0all:

symbol  $b: [1, \infty)$ symbol  $a: (5, \infty)$ 

$$ab - 4 > 0$$

$$ab - 6a + 24b - 4 > 0$$

$$ab - 3a + 8 > 0$$

|       |   | $x_0$ | $x_1$ | $x_2$                            | $x_3$                        | $x_4$ | $x_5$ |
|-------|---|-------|-------|----------------------------------|------------------------------|-------|-------|
| $x_0$ | $\frac{24b-24}{ab-4}$                         | 1     | 0     | $\frac{b}{ab-4}$                 | $-\frac{4}{ab-4}$            | 0     | 0     |
| $x_1$ | $\frac{6a-24}{ab-4}$                          | 0     | 1     | $-\frac{1}{ab-4}$                | $\frac{a}{ab-4}$             | 0     | 0     |
| $x_4$ | $\frac{1}{ab-4}\left(ab-6a+24b-4\right)$      | 0     | 0     | $\frac{b+1}{ab-4}$               | $-\frac{a+4}{ab-4}$          | 1     | 0     |
| $x_5$ | $\frac{2ab-6a+16}{ab-4}$                      | 0     | 0     | $\frac{1}{ab-4}$                 | $-\frac{a}{ab-4}$            | 0     | 1     |
| Ψ     | $\tfrac{24.0a + 120.0b - 216.0}{1.0ab - 4.0}$ | 0     | 0     | $\frac{5.0b - 4.0}{1.0ab - 4.0}$ | $\frac{4.0a - 20.0}{ab - 4}$ | 0     | 0     |

$$x_0 = \frac{24b - 24}{ab - 4}$$

$$x_1 = \frac{6a - 24}{ab - 4}$$

$$x_2 = 0$$

$$x_3 = 0$$

$$x_4 = \frac{1}{ab - 4} (ab - 6a + 24b - 4)$$

$$x_5 = \frac{2ab - 6a + 16}{ab - 4}$$

$$\Psi = \frac{24.0a + 120.0b - 216.0}{1.0ab - 4.0}$$

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Table \#0.2
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Moving out basis:  $x_4$  from line: 2

Moving to basis:  $x_1$ 

pots: pot #0: new: symbol  $a: (16, \infty)$  ab-4>0  $-ab+6a-24b+4\geqslant 0$ all: symbol  $a: (16, \infty)$  ab-4>0  $-ab+6a-24b+4\geqslant 0$ pot #1: new:

symbol  $a: (16, \infty)$  $-ab + 4 \ge 0$ 

all:

symbol  $a:(16,\infty)$ 

$$-ab + 4 \geqslant 0$$

|       |   | $x_0$ | $x_1$ | $x_2$             | $x_3$ | $x_4$                       | $x_5$ |
|-------|---|-------|-------|-------------------|-------|-----------------------------|-------|
| $x_0$ | $\frac{20}{a+4}$                                  | 1     | 0     | $\frac{1}{a+4}$   | 0     | $-\frac{4}{a+4}$            | 0     |
| $x_3$ | $\frac{1}{a+4} \left( -ab + 6a - 24b + 4 \right)$ | 0     | 0     | $-rac{b+1}{a+4}$ | 1     | $\frac{-ab+4}{a+4}$         | 0     |
| $x_1$ | $\frac{a+24}{a+4}$                                | 0     | 1     | $\frac{1}{a+4}$   | 0     | $\frac{a}{a+4}$             | 0     |
| $x_5$ | $\frac{a-16}{a+4}$                                | 0     | 0     | $-\frac{1}{a+4}$  | 0     | $-\frac{a}{a+4}$            | 1     |
| Ψ     | $\frac{4.0a + 196.0}{1.0a + 4.0}$                 | 0     | 0     | $\frac{9.0}{a+4}$ | 0     | $\frac{4.0a - 20.0}{a + 4}$ | 0     |

Solution:  

$$x_0 = \frac{20}{a+4}$$

$$x_1 = \frac{a+24}{a+4}$$

$$x_2 = 0$$

$$x_3 = \frac{1}{a+4} (-ab + 6a - 24b + 4)$$

$$x_4 = 0$$

$$x_5 = \frac{a-16}{a+4}$$

$$\Psi = \frac{4.0a+196.0}{1.0a+4.0}$$

Table #0.3

Moving out basis:  $x_5$  from line: 3

Moving to basis:  $x_1$ 

pots: pot #0:

new:

symbol a: (5, 16]

ab-4>0

 $-ab + 3a - 8 \geqslant 0$ 

all:

symbol a: (5, 16]

ab-4>0

 $-ab + 3a - 8 \geqslant 0$ 

pot #1:

new:

symbol a: (5, 16]

 $-ab + 4 \geqslant 0$ 

all:

symbol a: (5, 16]

$$-ab + 4 \geqslant 0$$

|       |                                 | $x_0$ | $x_1$ | $x_2$           | $x_3$ | $x_4$ | $x_5$                          |
|-------|---------------------------------|-------|-------|-----------------|-------|-------|--------------------------------|
| $x_0$ | $\frac{16}{a}$                  | 1     | 0     | $\frac{1}{a}$   | 0     | 0     | $-\frac{4}{a}$                 |
| $x_3$ | $-2b + 6 - \frac{16}{a}$        | 0     | 0     | $-\frac{1}{a}$  | 1     | 0     | $-b + \frac{4}{a}$             |
| $x_4$ | $\frac{1}{a}\left(-a+16\right)$ | 0     | 0     | $\frac{1}{a}$   | 0     | 1     | $-\frac{1}{a}\left(a+4\right)$ |
| $x_1$ | 2                               | 0     | 1     | 0               | 0     | 0     | 1                              |
| Ψ     | $8.0 + \frac{80.0}{a}$          | 0     | 0     | $\frac{5.0}{a}$ | 0     | 0     | $4.0 - \frac{20.0}{a}$         |

$$x_0 = \frac{16}{a}$$
$$x_1 = 2$$

$$x_2 = 0$$

$$x_3 = -2b + 6 - \frac{16}{2}$$

$$x_{3} = -2b + 6 - \frac{16}{a}$$

$$x_{4} = \frac{1}{a}(-a + 16)$$

$$x_{5} = 0$$

$$x_5 = 0$$

$$\Psi = 8.0 + \frac{80.0}{a}$$

## Table #0.-1

pots:

pot #0: new:

symbol a:(4,5]

all:

symbol a:(4,5]

|       |                                | $x_0$ | $x_1$                   | $x_2$           | $x_3$ | $x_4$ | $x_5$ |
|-------|--------------------------------|-------|-------------------------|-----------------|-------|-------|-------|
| $x_0$ | $\frac{24}{a}$                 | 1     | $\frac{4}{a}$           | $\frac{1}{a}$   | 0     | 0     | 0     |
| $x_3$ | $6 - \frac{24}{a}$             | 0     | $b-\frac{4}{a}$         | $-\frac{1}{a}$  | 1     | 0     | 0     |
| $x_4$ | $\frac{1}{a}\left(a+24\right)$ | 0     | $\frac{1}{a}(a+4)$      | $\frac{1}{a}$   | 0     | 1     | 0     |
| $x_5$ | 2                              | 0     | 1                       | 0               | 0     | 0     | 1     |
| Ψ     | $\frac{120.0}{a}$              | 0     | $-4.0 + \frac{20.0}{a}$ | $\frac{5.0}{a}$ | 0     | 0     | 0     |

$$x_0 = \frac{24}{3}$$

$$x_1 = 0$$

$$x_2 = 0$$

$$x_3 = 6 - \frac{24}{3}$$

Solution:  

$$x_0 = \frac{24}{a}$$
  
 $x_1 = 0$   
 $x_2 = 0$   
 $x_3 = 6 - \frac{24}{a}$   
 $x_4 = \frac{1}{a}(a + 24)$   
 $x_5 = 2$   
 $\Psi = \frac{120.0}{a}$ 

$$x_5 = \tilde{2}$$

$$\Psi = \frac{120.0}{a}$$

Table #1

Moving out basis:  $x_3$  from line: 1

Moving to basis:  $x_0$ 

pots: pot #0: new:

symbol a:(0,4]

all:

symbol a:(0,4]

pot #1: new:

symbol  $a:(-\infty,0]$ 

all:

symbol  $a:(-\infty,0]$ 

|       |          | $x_0$ | $x_1$      | $x_2$ | $x_3$ | $x_4$ | $x_5$ |
|-------|----------|-------|------------|-------|-------|-------|-------|
| $x_2$ | -6a + 24 | 0     | -ab+4      | 1     | -a    | 0     | 0     |
| $x_0$ | 6        | 1     | b          | 0     | 1     | 0     | 0     |
| $x_4$ | 7        | 0     | b+1        | 0     | 1     | 1     | 0     |
| $x_5$ | 2        | 0     | 1          | 0     | 0     | 0     | 1     |
| Ψ     | 30.0     | 0     | 5.0b - 4.0 | 0     | 5.0   | 0     | 0     |

```
Table #1.0
```

Moving out basis:  $x_2$  from line: 0

Moving to basis:  $x_1$ 

pots: pot #0:

new:

symbol b: (0, 4/5)

-ab + 4 > 0

-ab + 6a - 24b + 4 > 0

-ab + 3a - 8 > 0

all:

symbol b: (0, 4/5)

symbol a:(0,4]

-ab + 4 > 0

-ab + 6a - 24b + 4 > 0

-ab + 3a - 8 > 0

pot #1:

new:

symbol b: (-1, 0]

-ab + 4 > 0

-ab + 6a - 24b + 4 > 0

-ab + 3a - 8 > 0

all:

symbol b: (-1,0]

symbol a:(0,4]

-ab + 4 > 0

-ab + 6a - 24b + 4 > 0

-ab + 3a - 8 > 0

pot #2:

new:

symbol  $b: (-\infty, -1]$ 

-ab + 4 > 0

-ab + 3a - 8 > 0

all:

symbol  $b: (-\infty, -1]$ 

symbol a:(0,4]

-ab + 4 > 0

-ab + 3a - 8 > 0

|       |  | $x_0$ | $x_1$ | $x_2$                       | $x_3$                             | $x_4$ | $x_5$ |
|-------|--|-------|-------|-----------------------------|-----------------------------------|-------|-------|
| $x_1$ | $\frac{6a-24}{ab-4}$                         | 0     | 1     | $-\frac{1}{ab-4}$           | $\frac{a}{ab-4}$                  | 0     | 0     |
| $x_0$ | $\frac{24b-24}{ab-4}$                        | 1     | 0     | $\frac{b}{ab-4}$            | $-\frac{4}{ab-4}$                 | 0     | 0     |
| $x_4$ | $\frac{1}{ab-4}(ab-6a+24b-4)$                | 0     | 0     | $\frac{b+1}{ab-4}$          | $-\frac{a+4}{ab-4}$               | 1     | 0     |
| $x_5$ | $\frac{2ab-6a+16}{ab-4}$                     | 0     | 0     | $\frac{1}{ab-4}$            | $-\frac{a}{ab-4}$                 | 0     | 1     |
| Ψ     | $\frac{24.0a + 120.0b - 216.0}{1.0ab - 4.0}$ | 0     | 0     | $\frac{5.0b - 4.0}{ab - 4}$ | $\frac{4.0a - 20.0}{1.0ab - 4.0}$ | 0     | 0     |

$$x_0 = \frac{24b - 24}{ab - 4}$$

$$\begin{split} x_1 &= \frac{6a-24}{ab-4} \\ x_2 &= 0 \\ x_3 &= 0 \\ x_4 &= \frac{1}{ab-4} \left( ab - 6a + 24b - 4 \right) \\ x_5 &= \frac{2ab-6a+16}{ab-4} \\ \Psi &= \frac{24.0a+120.0b-216.0}{1.0ab-4.0} \end{split}$$

```
Table #1.3
Moving out basis: x_5 from line: 3
Moving to basis: x_1
pots:
pot #0:
new:
symbol b: (0, 4/5)
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
all:
symbol b: (0, 4/5)
symbol a:(0,4]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
pot #1:
new:
symbol b: (-1, 0]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
all:
symbol b: (-1, 0]
symbol a:(0,4]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
pot #2:
new:
symbol b: (-\infty, -1]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
all:
symbol b: (-\infty, -1]
symbol a:(0,4]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
pot #3:
new:
symbol b: (0, 4/5)
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
all:
symbol b: (0, 4/5)
symbol a:(-\infty,0]
-ab + 4 > 0
ab - 3a + 8 \geqslant 0
pot #4:
new:
```

symbol b: (-1, 0]

-ab + 4 > 0 $ab - 3a + 8 \geqslant 0$ 

all: symbol 
$$b: (-1,0]$$
 symbol  $a: (-\infty,0]$   $-ab+4>0$   $ab-3a+8\geqslant 0$  pot  $\#5:$  new: symbol  $b: (-\infty,-1]$   $-ab+4>0$   $ab-3a+8\geqslant 0$  all: symbol  $b: (-\infty,-1]$  symbol  $a: (-\infty,0]$   $-ab+4>0$   $ab-3a+8\geqslant 0$  pot  $\#6:$  new: symbol  $b: (0,4/5)$   $ab-4\geqslant 0$  all: symbol  $b: (0,4/5)$  symbol  $a: (-\infty,0]$   $ab-4\geqslant 0$  pot  $\#7:$  new: symbol  $b: (-1,0]$   $ab-4\geqslant 0$  pot  $\#7:$  new: symbol  $b: (-1,0]$   $ab-4\geqslant 0$  pot  $\#8:$  new: symbol  $b: (-\infty,0]$   $ab-4\geqslant 0$  all: symbol  $a: (-\infty,0]$   $ab-4\geqslant 0$ 

|       |               | $x_0$ | $x_1$ | $x_2$ | $x_3$ | $x_4$ | $x_5$       |
|-------|---------------|-------|-------|-------|-------|-------|-------------|
| $x_2$ | 2ab - 6a + 16 | 0     | 0     | 1     | -a    | 0     | ab-4        |
| $x_0$ | -2b + 6       | 1     | 0     | 0     | 1     | 0     | -b          |
| $x_4$ | -2b + 5       | 0     | 0     | 0     | 1     | 1     | -b - 1      |
| $x_1$ | 2             | 0     | 1     | 0     | 0     | 0     | 1           |
| Ψ     | -10.0b + 38.0 | 0     | 0     | 0     | 5.0   | 0     | -5.0b + 4.0 |

$$x_0 = -2b + 6$$

$$x_1 = 2$$

$$x_2 = 2ab - 6a + 16$$

$$x_3 = 0$$

$$x_4 = -2b + 5$$

$$x_5 = 0$$

$$\Psi = -10.0b + 38.0$$

## Table #1.-1

pots:

pot #0:

new:

symbol  $b: [4/5, \infty)$ 

all:

symbol  $b: [4/5, \infty)$ 

symbol a:(0,4]

 $\begin{array}{c} \text{pot } \#1: \\ \text{new:} \end{array}$ 

symbol  $b: [4/5, \infty)$ 

all:

symbol  $b: [4/5, \infty)$ symbol  $a: (-\infty, 0]$ 

|       |          | $x_0$ | $x_1$      | $x_2$ | $x_3$ | $x_4$ | $x_5$ |
|-------|----------|-------|------------|-------|-------|-------|-------|
| $x_2$ | -6a + 24 | 0     | -ab+4      | 1     | -a    | 0     | 0     |
| $x_0$ | 6        | 1     | b          | 0     | 1     | 0     | 0     |
| $x_4$ | 7        | 0     | b+1        | 0     | 1     | 1     | 0     |
| $x_5$ | 2        | 0     | 1          | 0     | 0     | 0     | 1     |
| Ψ     | 30.0     | 0     | 5.0b - 4.0 | 0     | 5.0   | 0     | 0     |

$$x_0 = 6$$

$$x_1 = 0$$

$$x_2 = -6a + 24$$

$$x_3 = 0$$

$$x_4 = 7$$

$$x_5 = 2$$

$$\Psi = 30.0$$