

```
=====
CMPU-365, Fall 2023
Abby, Joram, Sanjae
=====
```

```
[5] CL-USER(44): stn2
An STN with 5 tps: A B C D E
EDGES: (E 1 A) (D -1 C) (D -2 A) (D 5 E) (C 4 D) (B 2 C) (A 8 E) (A 2 B)
```

```
[5] CL-USER(45): (fw stn2)
#2A((6 2 4 8 8) (4 6 2 6 11) (2 4 3 4 9) (-2 0 -1 3 5) (1 3 5 9 9))
```

```
[5] CL-USER(46): stn3
An STN with 5 tps: A B C D E
EDGES: (D 4 E) (D -2 C) (D -2 B) (B -1 A) (A 4 D)
```

```
[5] CL-USER(47): (fw stn2)
#2A((6 2 4 8 8) (4 6 2 6 11) (2 4 3 4 9) (-2 0 -1 3 5) (1 3 5 9 9))
```

```
[5] CL-USER(48): stn4
An STN with 5 tps: A B C D E
EDGES: (E -4 A) (D 2 E) (C 3 D) (B 1 C) (A 2 B)
```

```
[5] CL-USER(49): (fw stn4)
#2A((4 2 3 6 8) (2 4 1 4 6) (1 3 4 3 5) (-2 0 1 4 2) (-4 -2 -1 2 4))
```

```
[5] CL-USER(50): stn2
An STN with 5 tps: A B C D E
EDGES: (E 1 A) (D -1 C) (D -2 A) (D 5 E) (C 4 D) (B 2 C) (A 8 E) (A 2 B)
```

```
[5] CL-USER(51): (gen-soln stn2)
#(12 13 15 18 11)
```

```
[5] CL-USER(52): (is-soln-for? #(12 13 15 18 11) stn2)
(13 - 12) <= 2
(11 - 12) <= 8
(15 - 13) <= 2
(18 - 15) <= 4
(12 - 18) <= -2
(11 - 18) <= 5
(15 - 18) <= -1
(12 - 11) <= 1
T
```

```
[5] CL-USER(53): stn3
An STN with 5 tps: A B C D E
EDGES: (D 4 E) (D -2 C) (D -2 B) (B -1 A) (A 4 D)
```

```
[5] CL-USER(54): (gen-soln stn3)
#(2 3 2 5 -9)
```

```
[5] CL-USER(55): (is-soln-for? #(2 3 2 5 -9) stn3)
(5 - 2) <= 4
(2 - 3) <= -1
(3 - 5) <= -2
(-9 - 5) <= 4
(2 - 5) <= -2
T
```

```
[5] CL-USER(56): stn4
An STN with 5 tps: A B C D E
EDGES: (E -4 A) (D 2 E) (C 3 D) (B 1 C) (A 2 B)
```

```
[5] CL-USER(57): (gen-soln stn4)
#(4 6 7 9 11)
```

```
[5] CL-USER(58): (is-soln-for? #(4 6 7 9 11) stn4)
(6 - 4) <= 2
(7 - 6) <= 1
(9 - 7) <= 3
(11 - 9) <= 2
(4 - 11) <= -4
T
```

```
[5] CL-USER(63): stn1
An STN with 5 tps: A B C D E
EDGES: (E -1 D) (D 9 E) (D -4 C) (C -2 B) (B 7 E) (B -3 A) (A 15 E)
```

```
[5] CL-USER(64): (rte stn1 :verbose? t)
Starting round 0 with now=0 and enableds=(0)
---> Executing 0 at time 0
-- Updating uppers(4) = 15
-- Updating lowers(1) = 3
-- 1 has become enabled!
Starting round 1 with now=0 and enableds=(1)
---> Executing 1 at time 9
-- Updating uppers(4) = 16
-- Updating lowers(2) = 11
-- 2 has become enabled!
Starting round 2 with now=9 and enableds=(2)
---> Executing 2 at time 15
-- Updating lowers(3) = 19
-- 3 has become enabled!
Starting round 3 with now=15 and enableds=(3)
---> Executing 3 at time 19
-- Updating uppers(4) = 28
-- Updating lowers(4) = 20
-- 4 has become enabled!
Starting round 4 with now=19 and enableds=(4)
---> Executing 4 at time 21
#(0 9 15 19 21)

[5] CL-USER(65): (is-soln-for? #(0 9 15 19 21) stn1)
(21 - 0) <= 15
NIL
```

```
[5] CL-USER(66): stn2
An STN with 5 tps: A B C D E
EDGES: (E 1 A) (D -1 C) (D -2 A) (D 5 E) (C 4 D) (B 2 C) (A 8 E) (A 2 B)
```

```
[5] CL-USER(67): (rte stn2 :verbose? t)
Starting round 0 with now=0 and enableds=(4 2 1 0)
---> Executing 0 at time 1
-- Updating uppers(1) = 3
-- Updating uppers(4) = 9
-- Updating lowers(3) = 3
Starting round 1 with now=1 and enableds=(4 2 1)
---> Executing 1 at time 3
-- Updating uppers(2) = 5
Starting round 2 with now=3 and enableds=(4 2)
---> Executing 2 at time 4
-- Updating uppers(0) = 5
Starting round 3 with now=4 and enableds=(2)
---> Executing 3 at time 5
-- Updating uppers(3) = 9
-- Updating lowers(3) = 6
-- 3 has become enabled!
Starting round 4 with now=5 and enableds=(3)
---> Executing 4 at time 8
-- Updating uppers(4) = 13
#(1 3 5 8 4)
```

```
[5] CL-USER(68): (is-soln-for? #(1 3 5 8 4) stn2)
(3 - 1) <= 2
(4 - 1) <= 8
(5 - 3) <= 2
(8 - 5) <= 4
(1 - 8) <= -2
(4 - 8) <= 5
(5 - 8) <= -1
(1 - 4) <= 1
T
```