```
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-1
The initial entries of router id 1 are:
neighbor id: 10 link cost: 17
neighbor id: 3 link cost: 8
neighbor id: 6 link cost: 12
The entries of router id 1 are:
neighbor id: 10 link cost: 17
neighbor id: 3 link cost: 8
neighbor id: 6 link cost: 12
neighbor id: 8 link cost: 24
The entries of router id 1 remains unchanged.
The entries of router id 1 are:
neighbor id: 8 link cost: 24
neighbor id: 10 link cost: 17
neighbor id: 3 link cost: 8
neighbor id: 6 link cost: 12
neighbor id: 2 link cost: 31
neighbor id: 5 link cost: 19
The entries of router id 1 remains unchanged.
The entries of router_id 1 are:
neighbor id: 2 link cost: 31
neighbor id: 3 link cost: 8
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 12
neighbor id: 8 link cost: 24
neighbor id: 10 link cost: 17
neighbor id: 4 link cost: 44
neighbor id: 7 link cost: 36
neighbor id: 9 link cost: 48
The entries of router id 1 remains unchanged.
The entries of router id 1 are:
neighbor id: 2 link cost: 25
neighbor id: 3 link cost: 8
neighbor id: 4 link cost: 38
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 12
neighbor id: 7 link cost: 30
neighbor id: 8 link cost: 24
neighbor id: 9 link cost: 30
neighbor id: 10 link cost: 17
The entries of router id 1 remains unchanged.
The entries of router id 1 remains unchanged.
The entries of router id 1 remains unchanged.
The entries of router id 1 are:
neighbor id: 2 link cost: 25
neighbor id: 3 link cost: 8
neighbor id: 4 link cost: 33
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 12
neighbor id: 7 link cost: 30
neighbor id: 8 link cost: 24
neighbor id: 9 link cost: 30
neighbor id: 10 link cost: 17
The entries of router_id 1 remains unchanged.
The entries of router id 1 remains unchanged.
The entries of router id 1 remains unchanged.
```

The entries of router id 1 remains unchanged.

```
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-2
The initial entries of router id 2 are:
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 19
neighbor id: 7 link cost: 5
The entries of router id 2 are:
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 19
neighbor id: 7 link cost: 5
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 20
The entries of router id 2 remains unchanged.
The entries of router id 2 are:
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 13
neighbor id: 7 link cost: 5
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 17
The entries of router id 2 remains unchanged.
The entries of router id 2 remains unchanged.
The entries of router id 2 are:
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 13
neighbor id: 7 link cost: 5
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 17
neighbor id: 1 link cost: 25
The entries of router id 2 remains unchanged.
The entries of router id 2 remains unchanged.
The entries of router id 2 are:
neighbor id: 1 link cost: 25
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 13
neighbor id: 7 link cost: 5
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 17
neighbor id: 3 link cost: 33
neighbor id: 10 link cost: 42
The entries of router id 2 remains unchanged.
The entries of router_id 2 are:
neighbor id: 1 link cost: 25
neighbor id: 3 link cost: 33
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 13
neighbor id: 7 link cost: 5
```

```
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 17
neighbor id: 10 link cost: 19
The entries of router id 2 remains unchanged.
The entries of router_id 2 remains unchanged.
The entries of router id 2 are:
neighbor id: 1 link cost: 25
neighbor id: 3 link cost: 32
neighbor id: 4 link cost: 13
neighbor id: 5 link cost: 6
neighbor id: 6 link cost: 13
neighbor id: 7 link cost: 5
neighbor id: 8 link cost: 22
neighbor id: 9 link cost: 17
neighbor id: 10 link cost: 19
The entries of router id 2 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-3
The initial entries of router id 3 are:
neighbor id: 8 link cost: 16
neighbor id: 1 link cost: 8
neighbor id: 10 link cost: 13
The entries of router id 3 are:
neighbor id: 8 link cost: 16
neighbor id: 1 link cost: 8
neighbor id: 10 link cost: 13
neighbor id: 6 link cost: 20
The entries of router id 3 remains unchanged.
The entries of router id 3 are:
neighbor id: 8 link cost: 16
neighbor id: 1 link cost: 8
neighbor id: 10 link cost: 13
neighbor id: 6 link cost: 20
neighbor id: 2 link cost: 39
neighbor id: 5 link cost: 27
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 39
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
```

```
neighbor id: 8 link cost: 16
neighbor id: 10 link cost: 13
neighbor id: 4 link cost: 52
neighbor id: 7 link cost: 44
neighbor id: 9 link cost: 56
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 33
neighbor id: 4 link cost: 46
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
neighbor id: 7 link cost: 38
neighbor id: 8 link cost: 16
neighbor id: 9 link cost: 38
neighbor id: 10 link cost: 13
The entries of router id 3 remains unchanged.
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 33
neighbor id: 4 link cost: 25
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
neighbor id: 7 link cost: 38
neighbor id: 8 link cost: 16
neighbor id: 9 link cost: 38
neighbor id: 10 link cost: 13
The entries of router id 3 remains unchanged.
The entries of router id 3 remains unchanged.
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 33
neighbor id: 4 link cost: 25
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
neighbor id: 7 link cost: 38
neighbor id: 8 link cost: 16
neighbor id: 9 link cost: 32
neighbor id: 10 link cost: 13
The entries of router id 3 remains unchanged.
The entries of router id 3 remains unchanged.
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 33
neighbor id: 4 link cost: 25
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
neighbor id: 7 link cost: 27
neighbor id: 8 link cost: 16
neighbor id: 9 link cost: 32
neighbor id: 10 link cost: 13
The entries of router_id 3 remains unchanged.
The entries of router_id 3 remains unchanged.
The entries of router id 3 are:
neighbor id: 1 link cost: 8
neighbor id: 2 link cost: 32
neighbor id: 4 link cost: 25
```

```
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 20
neighbor id: 7 link cost: 27
neighbor id: 8 link cost: 16
neighbor id: 9 link cost: 32
neighbor id: 10 link cost: 13
The entries of router id 3 remains unchanged.
The entries of router id 3 remains unchanged.
The entries of router_id 3 remains unchanged.
The entries of router id 3 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-4
The initial entries of router id 4 are:
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 2 link cost: 13
The entries of router id 4 are:
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 2 link cost: 13
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 32
neighbor id: 7 link cost: 18
The entries of router_id 4 are:
neighbor id: 2 link cost: 13
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
The entries of router id 4 remains unchanged.
The entries of router id 4 are:
neighbor id: 2 link cost: 13
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 1 link cost: 38
The entries of router id 4 are:
neighbor id: 1 link cost: 38
neighbor id: 2 link cost: 13
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 3 link cost: 46
neighbor id: 10 link cost: 55
The entries of router id 4 are:
neighbor id: 1 link cost: 38
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 46
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
```

```
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 10 link cost: 32
The entries of router id 4 are:
neighbor id: 1 link cost: 38
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 25
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 10 link cost: 21
The entries of router id 4 are:
neighbor id: 1 link cost: 33
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 25
neighbor id: 5 link cost: 19
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 10 link cost: 21
The entries of router id 4 remains unchanged.
The entries of router_id 4 remains unchanged.
The entries of router id 4 are:
neighbor id: 1 link cost: 33
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 25
neighbor id: 5 link cost: 18
neighbor id: 6 link cost: 26
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 10 link cost: 21
The entries of router id 4 are:
neighbor id: 1 link cost: 33
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 25
neighbor id: 5 link cost: 18
neighbor id: 6 link cost: 25
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 9
neighbor id: 9 link cost: 7
neighbor id: 10 link cost: 21
The entries of router id 4 remains unchanged.
The entries of router id 4 remains unchanged.
The entries of router_id 4 remains unchanged.
The entries of router id 4 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start_router.py config/large-5
The initial entries of router id 5 are:
neighbor id: 9 link cost: 11
neighbor id: 2 link cost: 6
neighbor id: 6 link cost: 7
```

```
The entries of router id 5 are:
neighbor id: 9 link cost: 11
neighbor id: 2 link cost: 6
neighbor id: 6 link cost: 7
neighbor id: 4 link cost: 19
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 28
The entries of router id 5 remains unchanged.
The entries of router_id 5 are:
neighbor id: 2 link cost: 6
neighbor id: 4 link cost: 19
neighbor id: 6 link cost: 7
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 28
neighbor id: 9 link cost: 11
neighbor id: 1 link cost: 19
The entries of router id 5 remains unchanged.
The entries of router id 5 are:
neighbor id: 1 link cost: 19
neighbor id: 2 link cost: 6
neighbor id: 4 link cost: 19
neighbor id: 6 link cost: 7
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 28
neighbor id: 9 link cost: 11
neighbor id: 3 link cost: 27
neighbor id: 10 link cost: 36
The entries of router id 5 remains unchanged.
The entries of router id 5 remains unchanged.
The entries of router id 5 remains unchanged.
The entries of router id 5 are:
neighbor id: 1 link cost: 19
neighbor id: 2 link cost: 6
neighbor id: 3 link cost: 27
neighbor id: 4 link cost: 19
neighbor id: 6 link cost: 7
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 28
neighbor id: 9 link cost: 11
neighbor id: 10 link cost: 25
The entries of router id 5 remains unchanged.
The entries of router id 5 remains unchanged.
The entries of router id 5 are:
neighbor id: 1 link cost: 19
neighbor id: 2 link cost: 6
neighbor id: 3 link cost: 27
neighbor id: 4 link cost: 18
neighbor id: 6 link cost: 7
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 28
neighbor id: 9 link cost: 11
neighbor id: 10 link cost: 25
The entries of router id 5 are:
neighbor id: 1 link cost: 19
neighbor id: 2 link cost: 6
neighbor id: 3 link cost: 27
```

```
neighbor id: 4 link cost: 18
neighbor id: 6 link cost: 7
neighbor id: 7 link cost: 11
neighbor id: 8 link cost: 27
neighbor id: 9 link cost: 11
neighbor id: 10 link cost: 25
The entries of router id 5 remains unchanged.
The entries of router id 5 remains unchanged.
The entries of router_id 5 remains unchanged.
The entries of router id 5 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-6
The initial entries of router id 6 are:
neighbor id: 1 link cost: 12
neighbor id: 2 link cost: 19
neighbor id: 5 link cost: 7
The entries of router id 6 are:
neighbor id: 1 link cost: 12
neighbor id: 2 link cost: 19
neighbor id: 5 link cost: 7
neighbor id: 3 link cost: 20
neighbor id: 8 link cost: 36
neighbor id: 10 link cost: 29
The entries of router id 6 are:
neighbor id: 1 link cost: 12
neighbor id: 2 link cost: 19
neighbor id: 3 link cost: 20
neighbor id: 5 link cost: 7
neighbor id: 8 link cost: 36
neighbor id: 10 link cost: 29
neighbor id: 4 link cost: 32
neighbor id: 7 link cost: 24
neighbor id: 9 link cost: 36
The entries of router id 6 are:
neighbor id: 1 link cost: 12
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 20
neighbor id: 4 link cost: 26
neighbor id: 5 link cost: 7
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 35
neighbor id: 9 link cost: 18
neighbor id: 10 link cost: 29
The entries of router id 6 remains unchanged.
The entries of router_id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router_id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router_id 6 are:
neighbor id: 1 link cost: 12
```

neighbor id: 2 link cost: 13

```
neighbor id: 3 link cost: 20
neighbor id: 4 link cost: 25
neighbor id: 5 link cost: 7
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 35
neighbor id: 9 link cost: 18
neighbor id: 10 link cost: 29
The entries of router id 6 are:
neighbor id: 1 link cost: 12
neighbor id: 2 link cost: 13
neighbor id: 3 link cost: 20
neighbor id: 4 link cost: 25
neighbor id: 5 link cost: 7
neighbor id: 7 link cost: 18
neighbor id: 8 link cost: 34
neighbor id: 9 link cost: 18
neighbor id: 10 link cost: 29
The entries of router_id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router id 6 remains unchanged.
The entries of router_id 6 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-7
The initial entries of router id 7 are:
neighbor id: 10 link cost: 14
neighbor id: 2 link cost: 5
The entries of router id 7 are:
neighbor id: 10 link cost: 14
neighbor id: 2 link cost: 5
neighbor id: 1 link cost: 30
neighbor id: 3 link cost: 38
neighbor id: 4 link cost: 18
neighbor id: 5 link cost: 11
neighbor id: 6 link cost: 18
neighbor id: 8 link cost: 27
neighbor id: 9 link cost: 22
The entries of router id 7 remains unchanged.
The entries of router id 7 are:
neighbor id: 1 link cost: 30
neighbor id: 2 link cost: 5
neighbor id: 3 link cost: 27
neighbor id: 4 link cost: 18
neighbor id: 5 link cost: 11
neighbor id: 6 link cost: 18
neighbor id: 8 link cost: 26
neighbor id: 9 link cost: 22
neighbor id: 10 link cost: 14
The entries of router_id 7 remains unchanged.
The entries of router id 7 remains unchanged.
The entries of router id 7 remains unchanged.
The entries of router_id 7 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-8
The initial entries of router id 8 are:
neighbor id: 10 link cost: 12
neighbor id: 3 link cost: 16
```

```
neighbor id: 4 link cost: 9
The entries of router id 8 are:
neighbor id: 10 link cost: 12
neighbor id: 3 link cost: 16
neighbor id: 4 link cost: 9
neighbor id: 1 link cost: 24
neighbor id: 2 link cost: 49
neighbor id: 5 link cost: 43
neighbor id: 6 link cost: 36
neighbor id: 7 link cost: 54
neighbor id: 9 link cost: 54
The entries of router id 8 are:
neighbor id: 1 link cost: 24
neighbor id: 2 link cost: 22
neighbor id: 3 link cost: 16
neighbor id: 4 link cost: 9
neighbor id: 5 link cost: 28
neighbor id: 6 link cost: 35
neighbor id: 7 link cost: 27
neighbor id: 9 link cost: 16
neighbor id: 10 link cost: 12
The entries of router id 8 remains unchanged.
The entries of router id 8 remains unchanged.
The entries of router id 8 are:
neighbor id: 1 link cost: 24
neighbor id: 2 link cost: 22
neighbor id: 3 link cost: 16
neighbor id: 4 link cost: 9
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 35
neighbor id: 7 link cost: 27
neighbor id: 9 link cost: 16
neighbor id: 10 link cost: 12
The entries of router id 8 are:
neighbor id: 1 link cost: 24
neighbor id: 2 link cost: 22
neighbor id: 3 link cost: 16
neighbor id: 4 link cost: 9
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 34
neighbor id: 7 link cost: 27
neighbor id: 9 link cost: 16
neighbor id: 10 link cost: 12
The entries of router id 8 remains unchanged.
The entries of router id 8 are:
neighbor id: 1 link cost: 24
neighbor id: 2 link cost: 22
neighbor id: 3 link cost: 16
neighbor id: 4 link cost: 9
neighbor id: 5 link cost: 27
neighbor id: 6 link cost: 34
neighbor id: 7 link cost: 26
neighbor id: 9 link cost: 16
neighbor id: 10 link cost: 12
The entries of router id 8 remains unchanged.
The entries of router id 8 remains unchanged.
```

```
The entries of router id 8 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start router.py config/large-9
The initial entries of router id 9 are:
neighbor id: 4 link cost: 7
neighbor id: 5 link cost: 11
The entries of router id 9 are:
neighbor id: 4 link cost: 7
neighbor id: 5 link cost: 11
neighbor id: 1 link cost: 30
neighbor id: 2 link cost: 17
neighbor id: 3 link cost: 38
neighbor id: 6 link cost: 18
neighbor id: 7 link cost: 22
neighbor id: 8 link cost: 39
neighbor id: 10 link cost: 36
The entries of router id 9 are:
neighbor id: 1 link cost: 30
neighbor id: 2 link cost: 17
neighbor id: 3 link cost: 32
neighbor id: 4 link cost: 7
neighbor id: 5 link cost: 11
neighbor id: 6 link cost: 18
neighbor id: 7 link cost: 22
neighbor id: 8 link cost: 16
neighbor id: 10 link cost: 28
The entries of router id 9 remains unchanged.
Yings-MacBook-Pro-2:assignment4 racheldi$ python start_router.py config/large-10
The initial entries of router id 10 are:
neighbor id: 8 link cost: 12
neighbor id: 1 link cost: 17
neighbor id: 3 link cost: 13
neighbor id: 7 link cost: 14
The entries of router id 10 are:
neighbor id: 8 link cost: 12
neighbor id: 1 link cost: 17
neighbor id: 3 link cost: 13
neighbor id: 7 link cost: 14
neighbor id: 2 link cost: 34
neighbor id: 4 link cost: 21
neighbor id: 5 link cost: 39
neighbor id: 6 link cost: 46
neighbor id: 9 link cost: 28
The entries of router id 10 are:
neighbor id: 1 link cost: 17
neighbor id: 2 link cost: 19
neighbor id: 3 link cost: 13
neighbor id: 4 link cost: 21
The entries of router_id 10 remains unchanged.
neighbor id: 5 link cost: 25
neighbor id: 6 link cost: 32
```

The entries of router id 8 remains unchanged.

```
neighbor id: 7 link cost: 14
neighbor id: 8 link cost: 12
neighbor id: 9 link cost: 28
The entries of router id 10 remains unchanged.
The entries of router_id 10 are:
neighbor id: 1 link cost: 17
neighbor id: 2 link cost: 19
neighbor id: 3 link cost: 13
neighbor id: 4 link cost: 21
neighbor id: 5 link cost: 25
neighbor id: 6 link cost: 29
neighbor id: 7 link cost: 14
neighbor id: 8 link cost: 12
neighbor id: 9 link cost: 28
The entries of router_id 10 remains unchanged.
The entries of router id 10 remains unchanged.
The entries of router_id 10 remains unchanged.
The entries of router_id 10 remains unchanged.
```