```
initializing graph values
between 0 to 1 ,weight: 1
between 0 to 2 ,weight: 2
between 0 to 3 ,weight: 3
between 0 to 4 ,weight: 4
between 0 to 5 ,weight: 5
between 0 to 6 ,weight: 6
between 0 to 7 ,weight: 7
between 0 to 8 ,weight: 8
between 0 to 9 ,weight: 9
between 0 to 10 ,weight: 10
between 0 to 11 ,weight: 11
between 0 to 12 ,weight: 12
between 0 to 13 ,weight: 13
between 0 to 14 ,weight: 14
between 0 to 15 ,weight: 15
between 0 to 16 ,weight: 16
between 0 to 17 ,weight: 17
between 0 to 18 ,weight: 18
between 0 to 19 ,weight: 19
between 1 to 2 ,weight: 3
between 1 to 3 ,weight: 4
between 1 to 4 ,weight: 5
between 1 to 5 ,weight: 6
between 1 to 6 ,weight: 7
between 1 to 7 ,weight: 8
between 1 to 8 ,weight: 9
between 1 to 9 ,weight: 10
between 1 to 10 ,weight: 11
between 1 to 11 ,weight: 12
between 1 to 12 ,weight: 13
between 1 to 13 ,weight: 14
between 1 to 14 ,weight: 15
between 1 to 15 ,weight: 16
between 1 to 16 ,weight: 17
```

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between 1 to 17 ,weight: 18
between 1 to 18 ,weight: 19
between 1 to 19 ,weight: 20
between 2 to 3 ,weight: 5
between 2 to 4 ,weight: 6
between 2 to 5 ,weight: 7
between 2 to 6 ,weight: 8
between 2 to 7 ,weight: 9
between 2 to 8 ,weight: 10
between 2 to 9 ,weight: 11
between 2 to 10 ,weight: 12
between 2 to 11 ,weight: 13
between 2 to 12 ,weight: 14
between 2 to 13 ,weight: 15
between 2 to 14 ,weight: 16
between 2 to 15 ,weight: 17
between 2 to 16 ,weight: 18
between 2 to 17 ,weight: 19
between 2 to 18 ,weight: 20
between 2 to 19 ,weight: 21
```

```
results exe 1:
from to
(0, [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
from to
(1, [0])
from to
(2, [0])
from to
(3, [0])
from to
(4, [0])
from to
(5, [0])
from to
(6, [0])
from to
(7, [0])
from to
(8, [0])
from to
(9, [0])
from to
(10, [0])
from to
(11, [0])
from to
(12, [0])
from to
(13, [0])
from to
(14, [0])
from to
(15, [0])
from to
(16, [0])
from to
(17, [0])
from to
(18, [0])
from to
(19, [0])
```

```
exe 2 - will not change
between 1 to 2 ,weight: 1000
results exe 2:
from to
(0, [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
from to
(1, [0])
from to
(2, [0])
from to
(3, [0])
from to
(4, [0])
from to
(5, [0])
from to
(6, [0])
from to
(7, [0])
from to
(8, [0])
from to
(9, [0])
from to
(10, [0])
from to
(11, [0])
from to
(12, [0])
from to
(13, [0])
from to
(14, [0])
from to
(15, [0])
from to
(16, [0])
```

```
from to
(17, [0])
from to
(18, [0])
from to
(19, [0])
```

```
exe 2 - will change
between 2 to 3 ,weight: 1
results exe 2:
from to
(0, [1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19])
from to
(1, [0])
from to
(2, [3])
from to
(3, [0, 2])
from to
(4, [0])
from to
(5, [0])
from to
(6, [0])
from to
(7, [0])
from to
(8, [0])
from to
(9, [0])
from to
(10, [0])
from to
(11, [0])
from to
(12, [0])
from to
(13, [0])
from to
(14, [0])
from to
(15, [0])
from to
(16, [0])
```

```
from to
(17, [0])
from to
(18, [0])
from to
(19, [0])
```