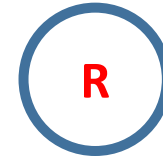


Beam Search Algorithm

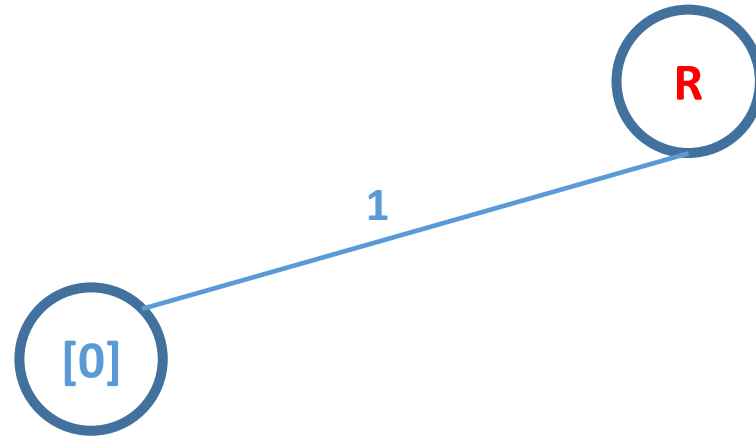
Beam Search Algorithm ($\beta = 3$)



Tier 0

Beam Search Algorithm ($\beta = 3$)

[[0], 1]

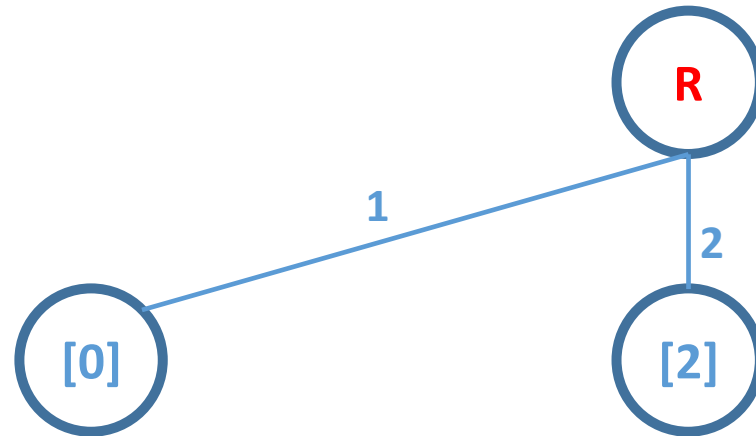


Tier 0

Tier 1

Beam Search Algorithm ($\beta = 3$)

[[0], 1]
[[2], 2]



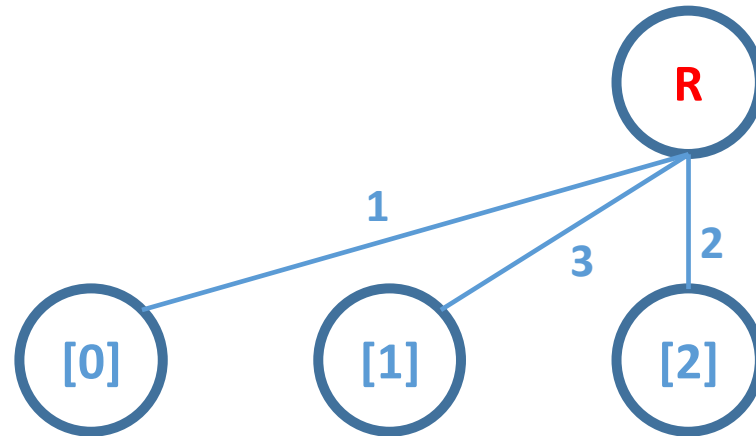
Tier 0



Tier 1

Beam Search Algorithm ($\beta = 3$)

[[0], 1]
[[2], 2]
[[1], 3]

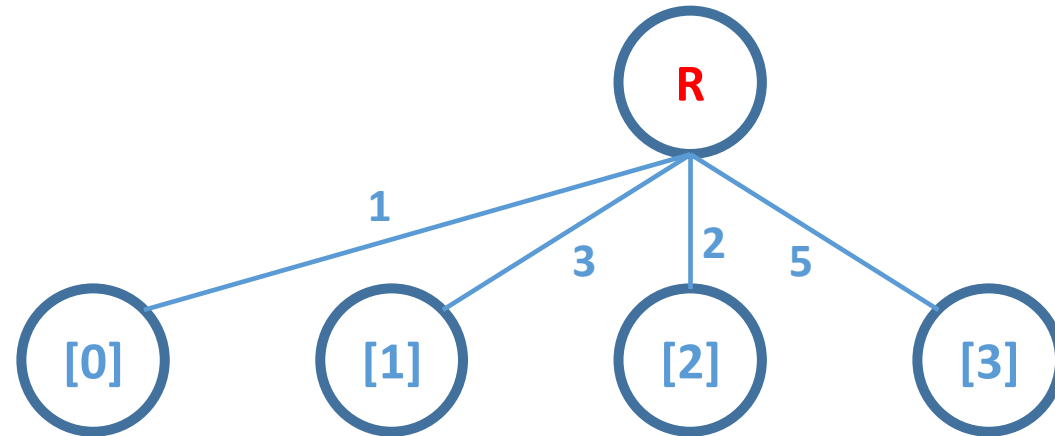


Tier 0

Tier 1

Beam Search Algorithm ($\beta = 3$)

[[0], 1]
[[2], 2]
[[1], 3]
[[3], 5]

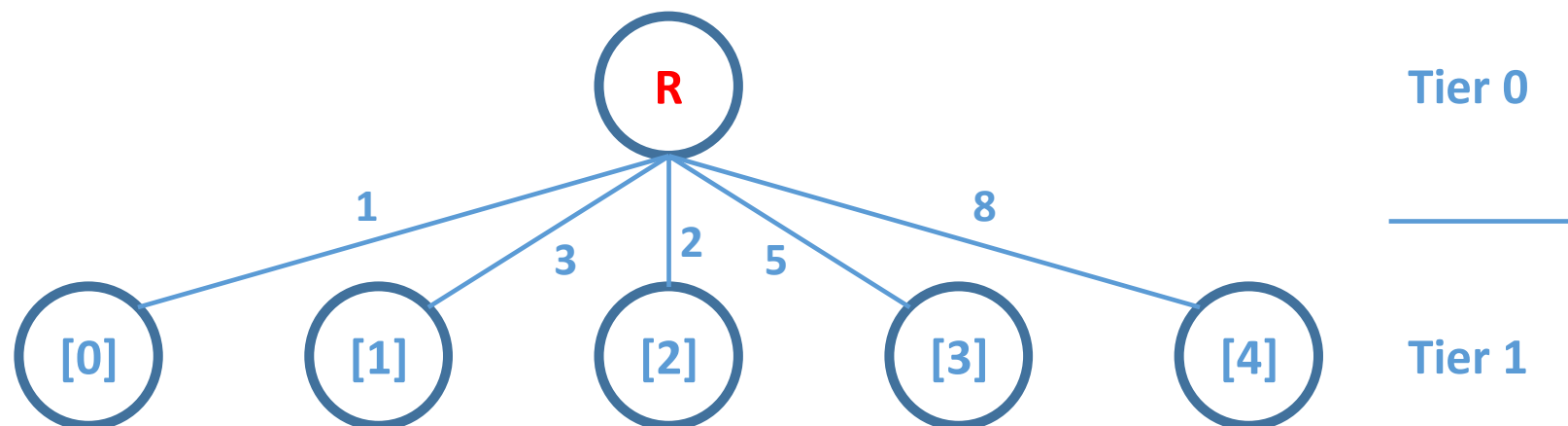


Tier 0

Tier 1

Beam Search Algorithm ($\beta = 3$)

[[0], 1]
[[2], 2]
[[1], 3]
[[3], 5]
[[4], 8]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

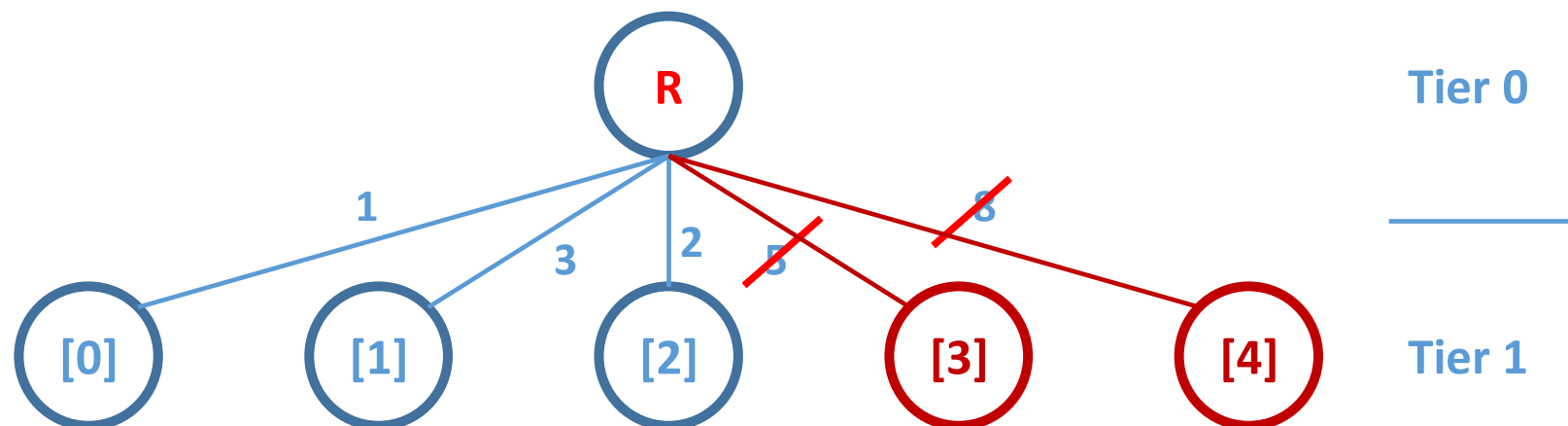
[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

~~[[3], 5]~~

~~[[4], 8]~~

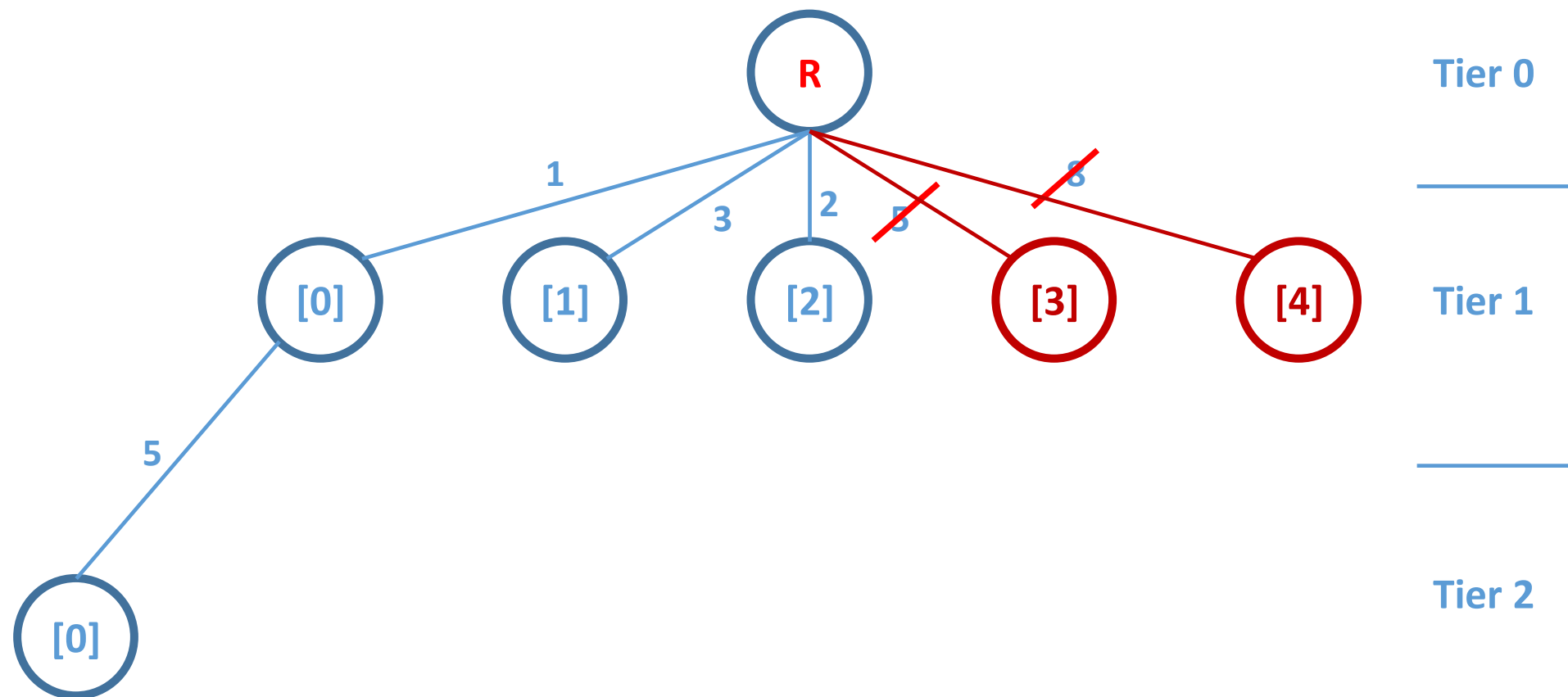
Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

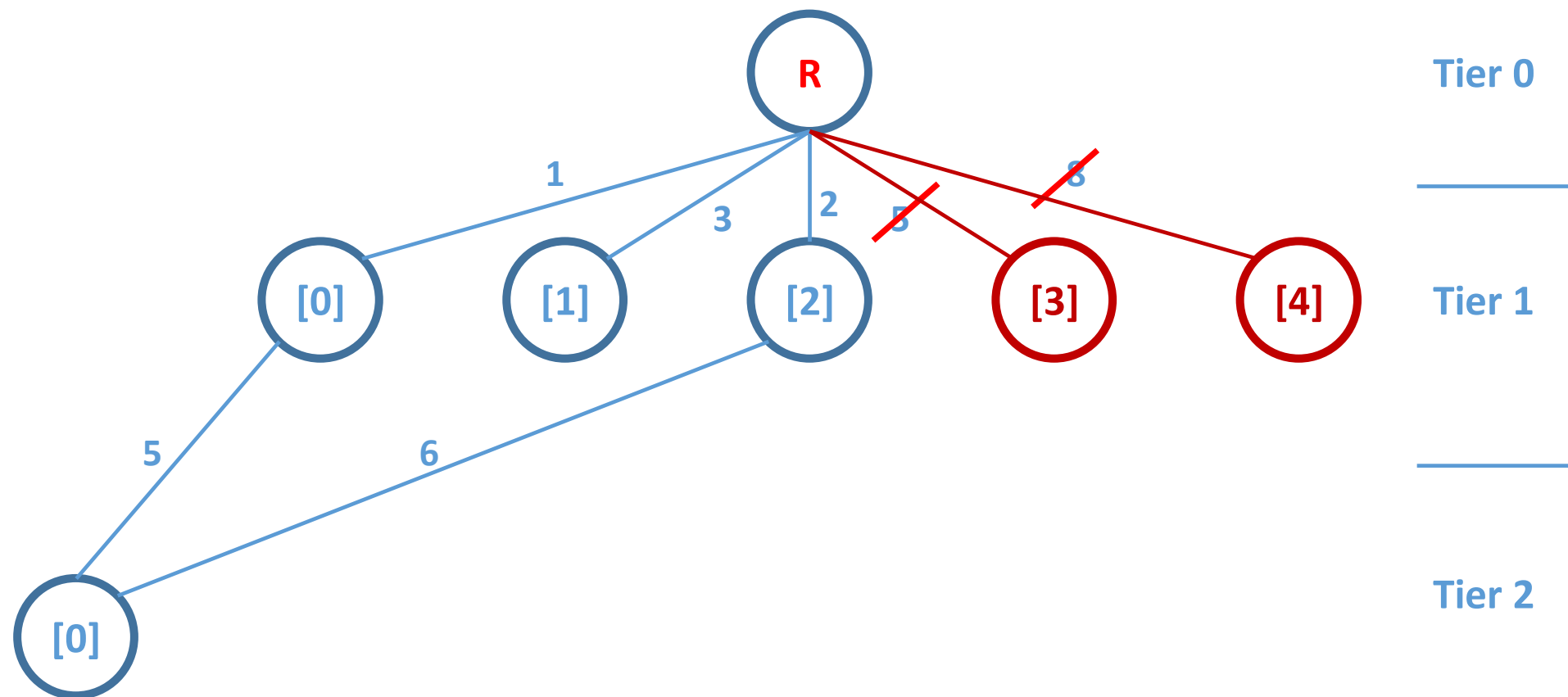
[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

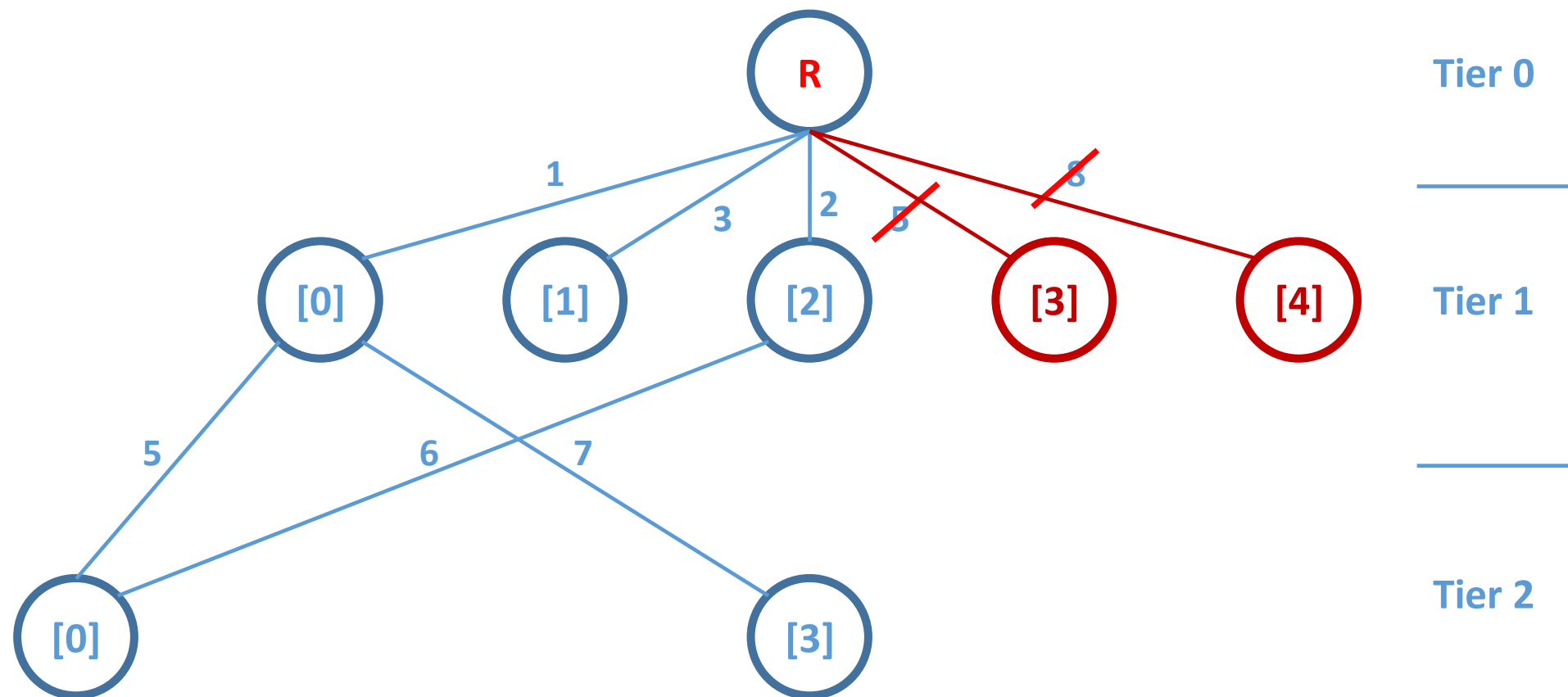
[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

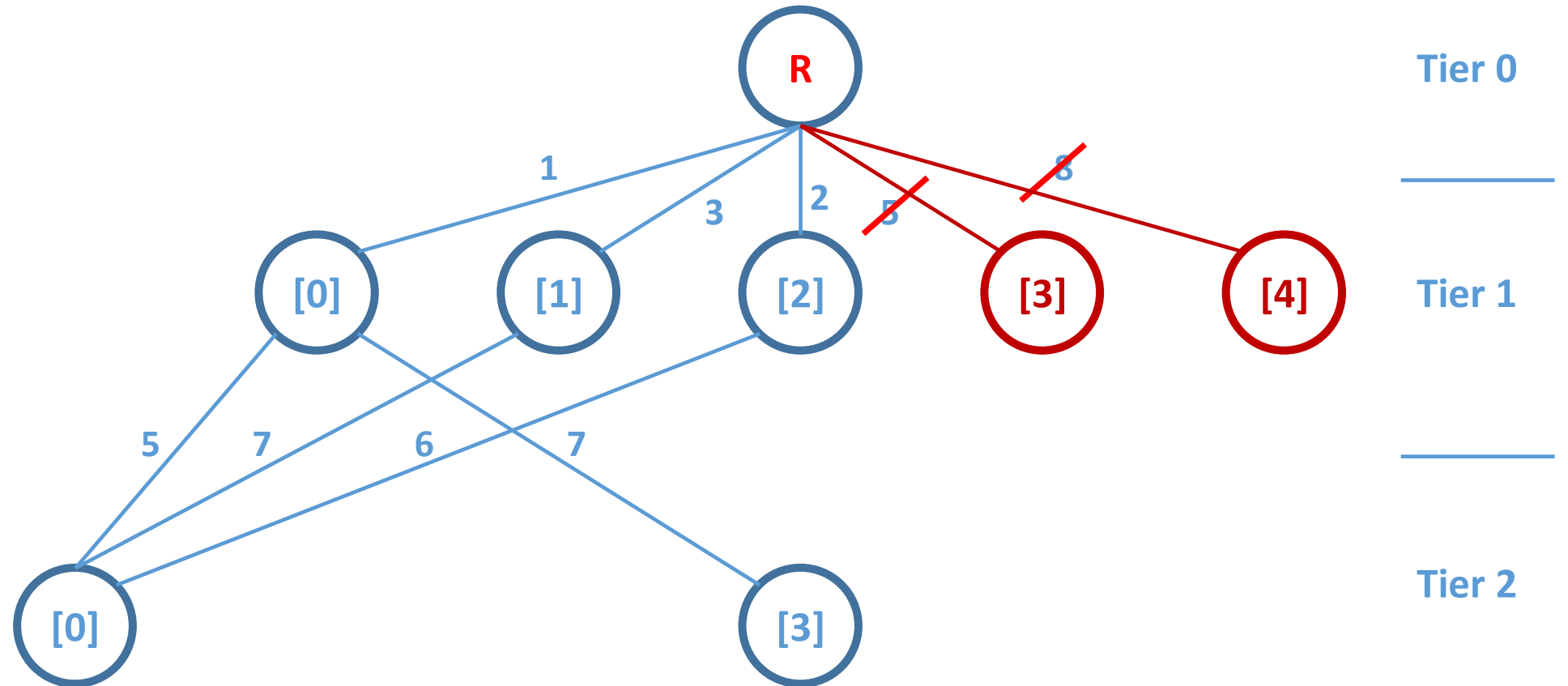
[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

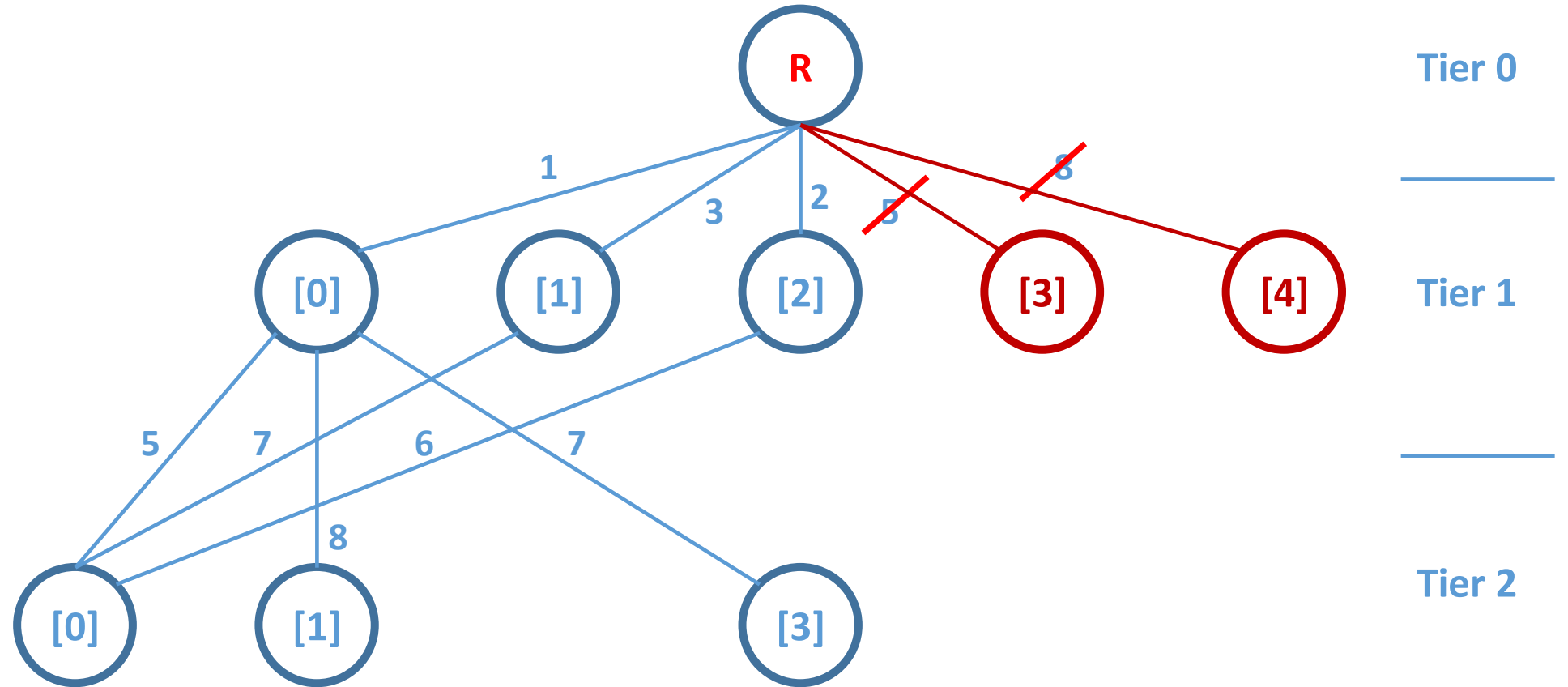
[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

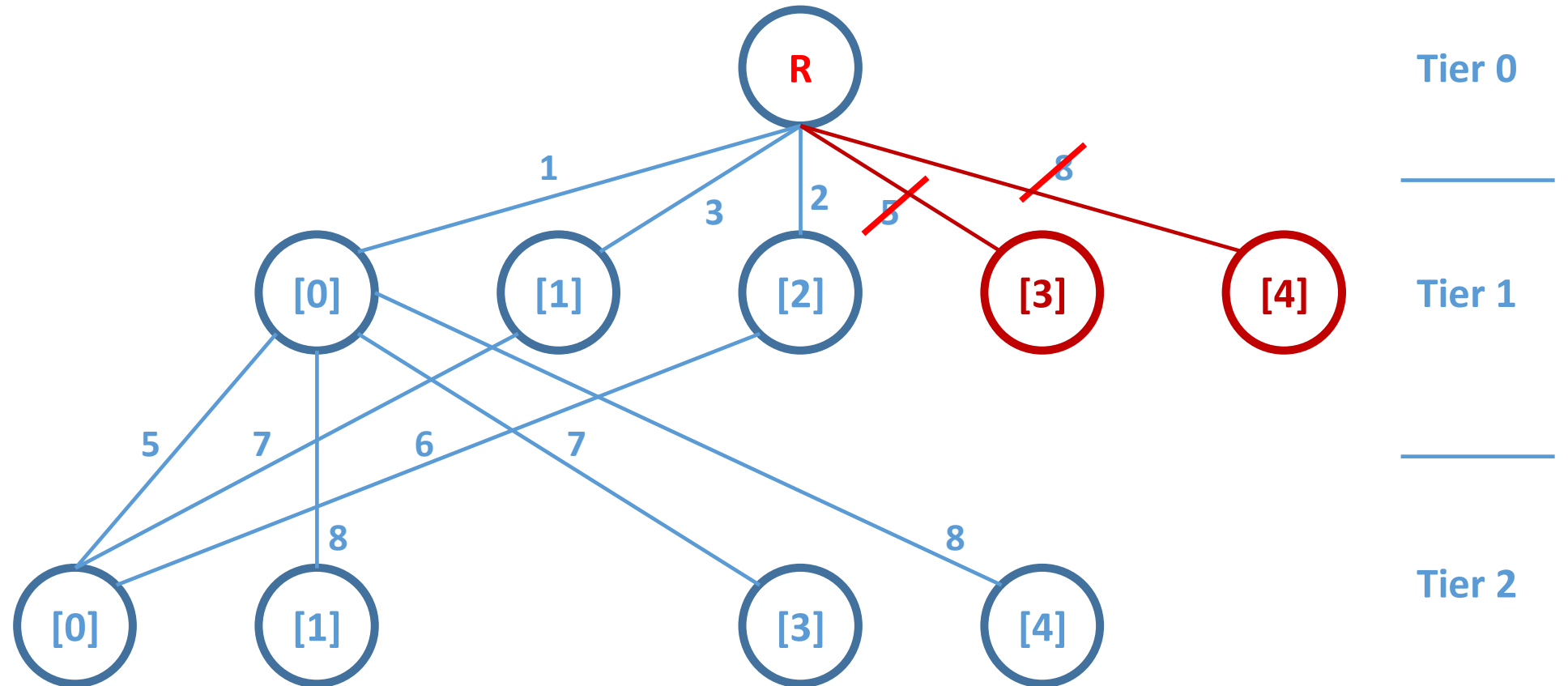
[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

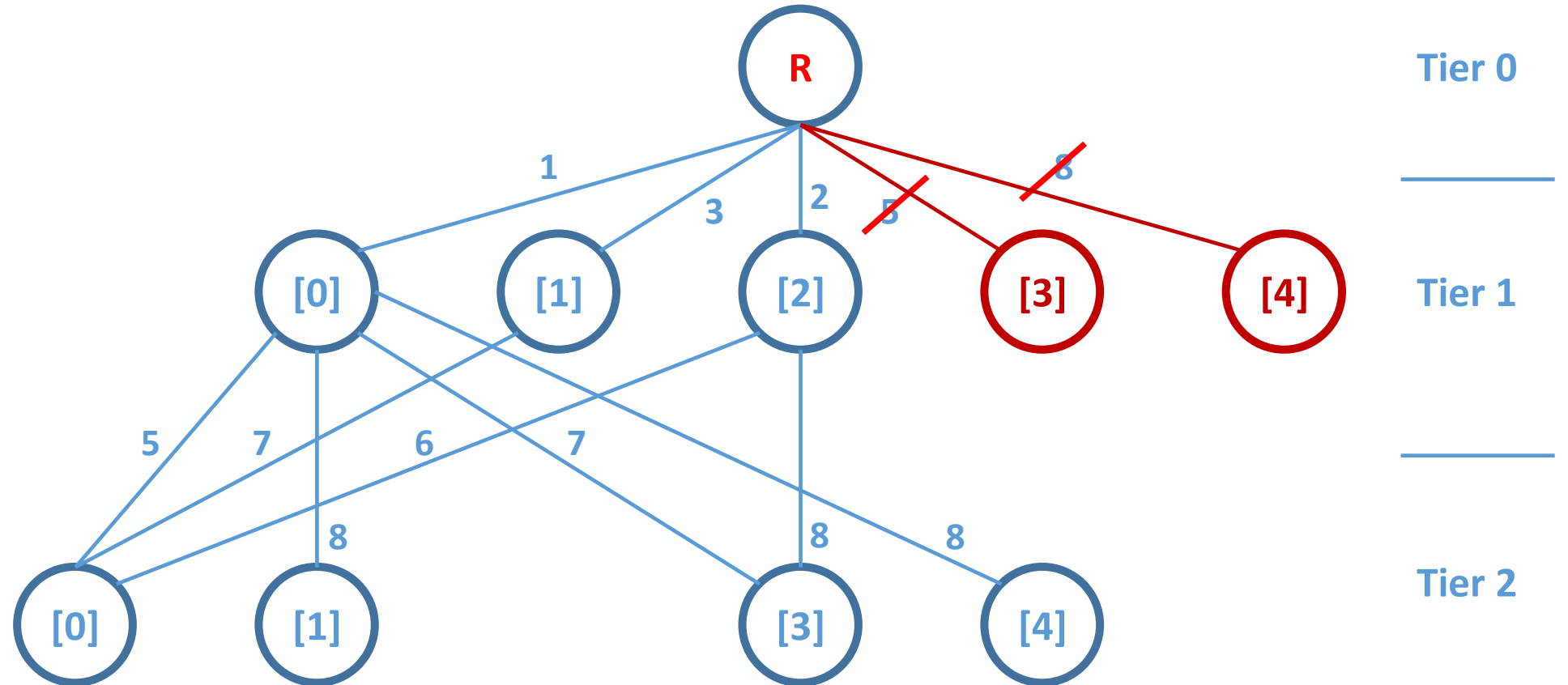
[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

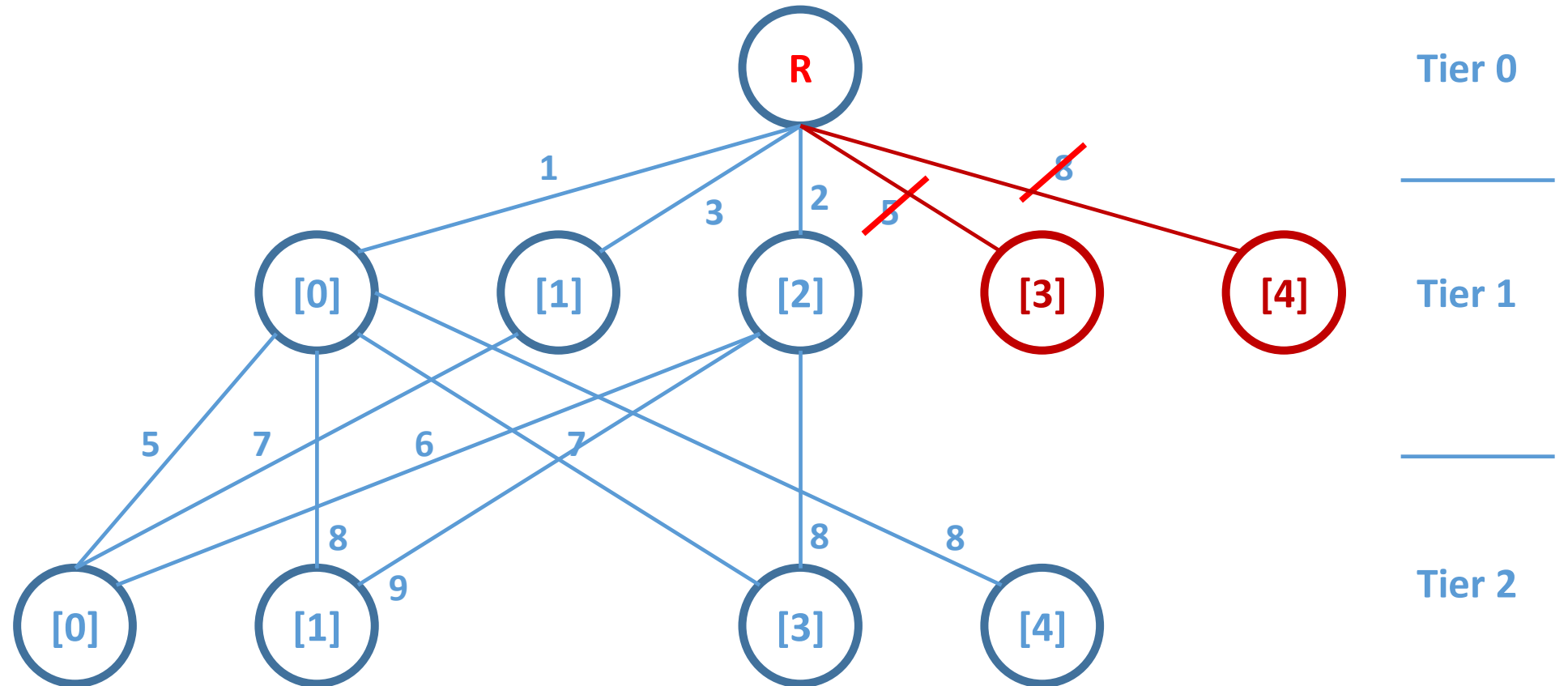
[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

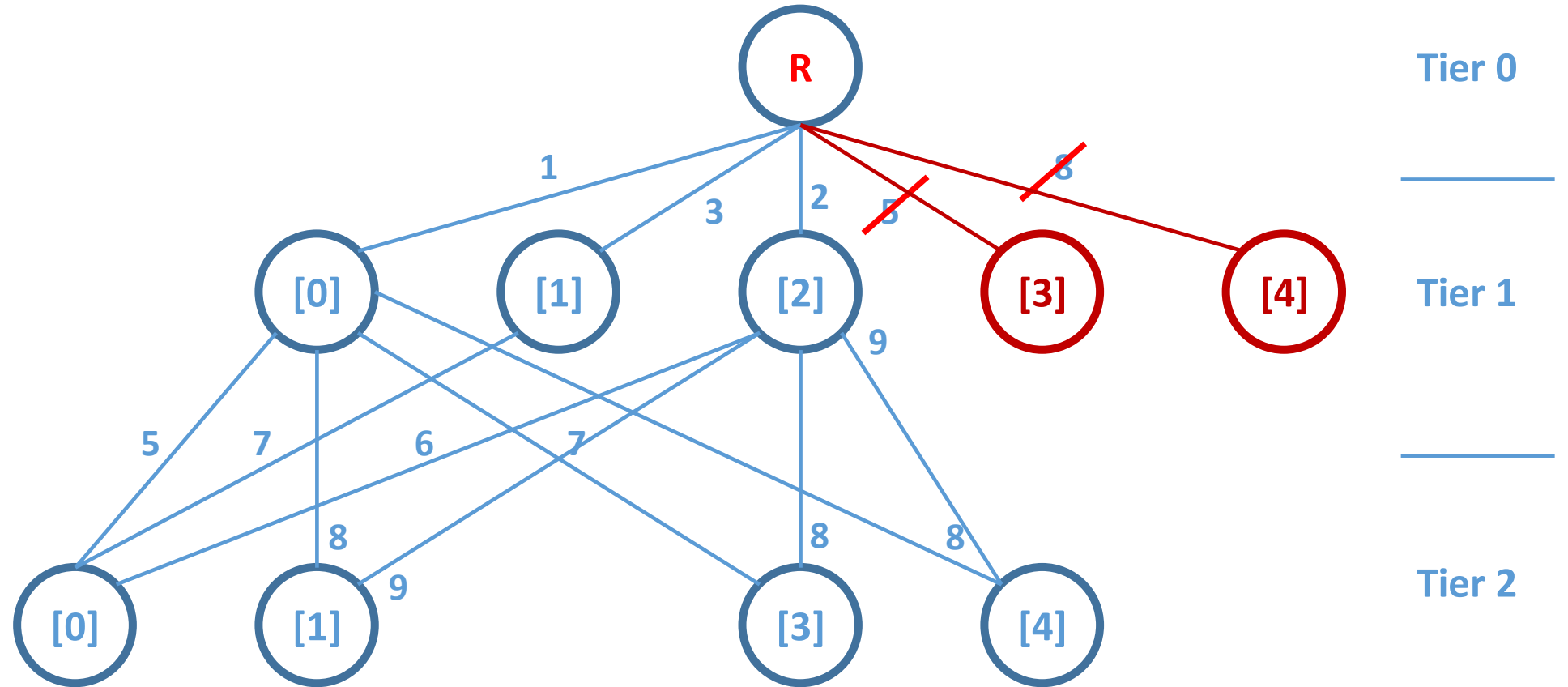
[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

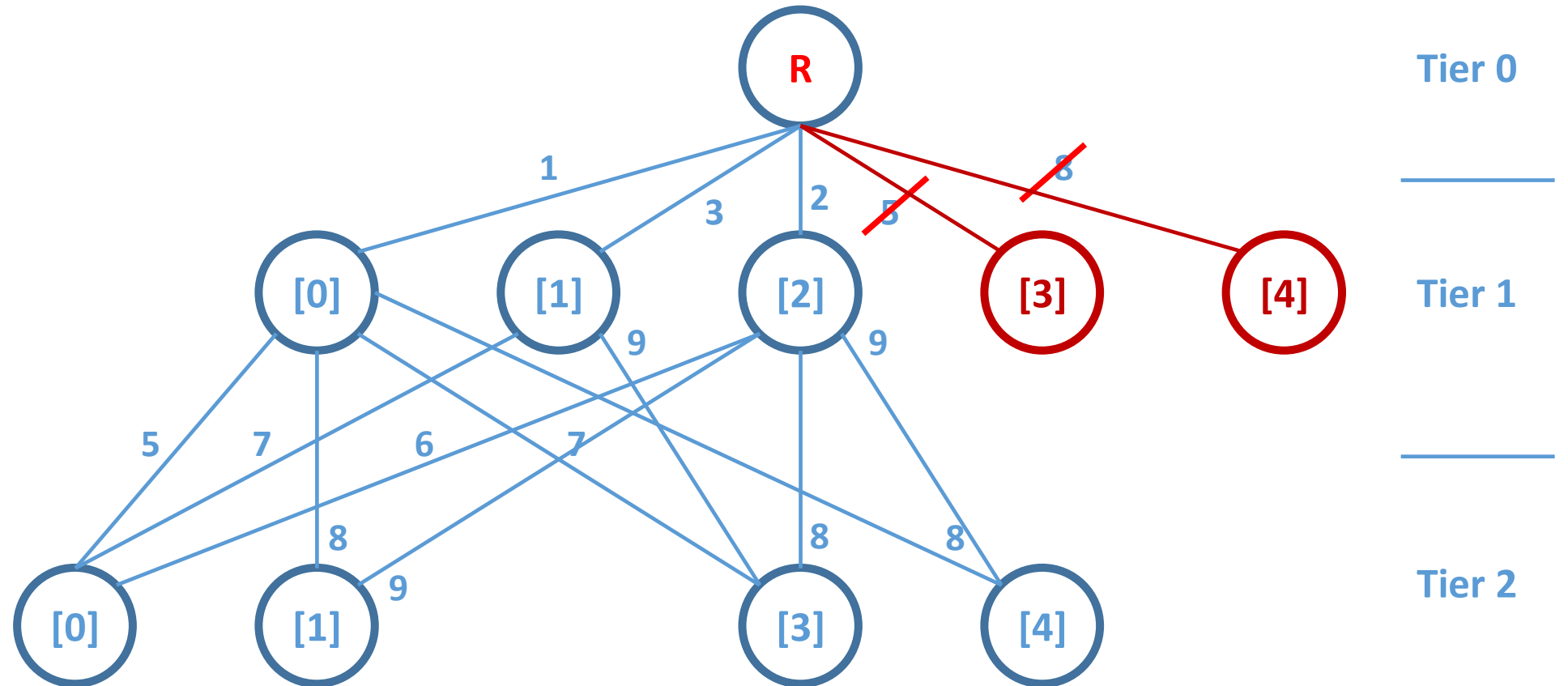
[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]



Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

~~[[3], 5]~~

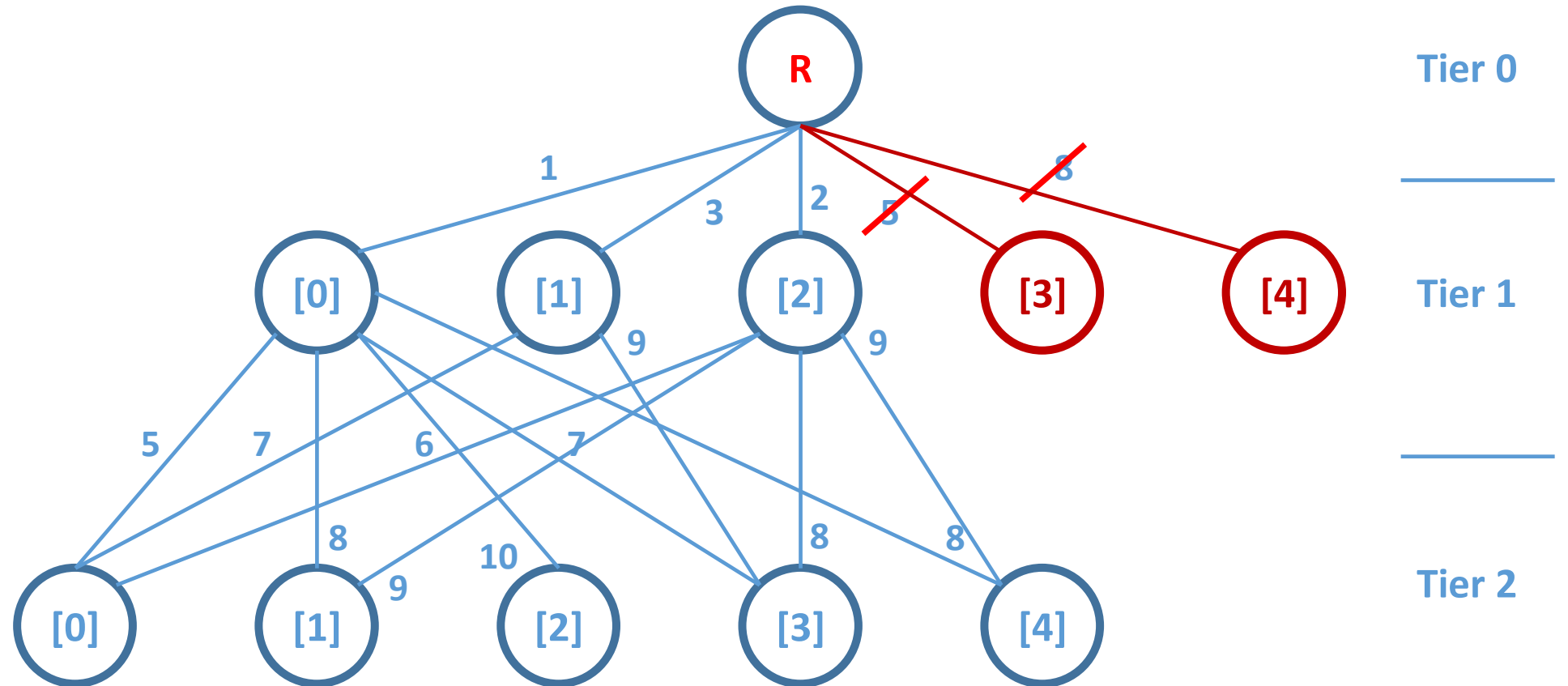
~~[[4], 8]~~

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

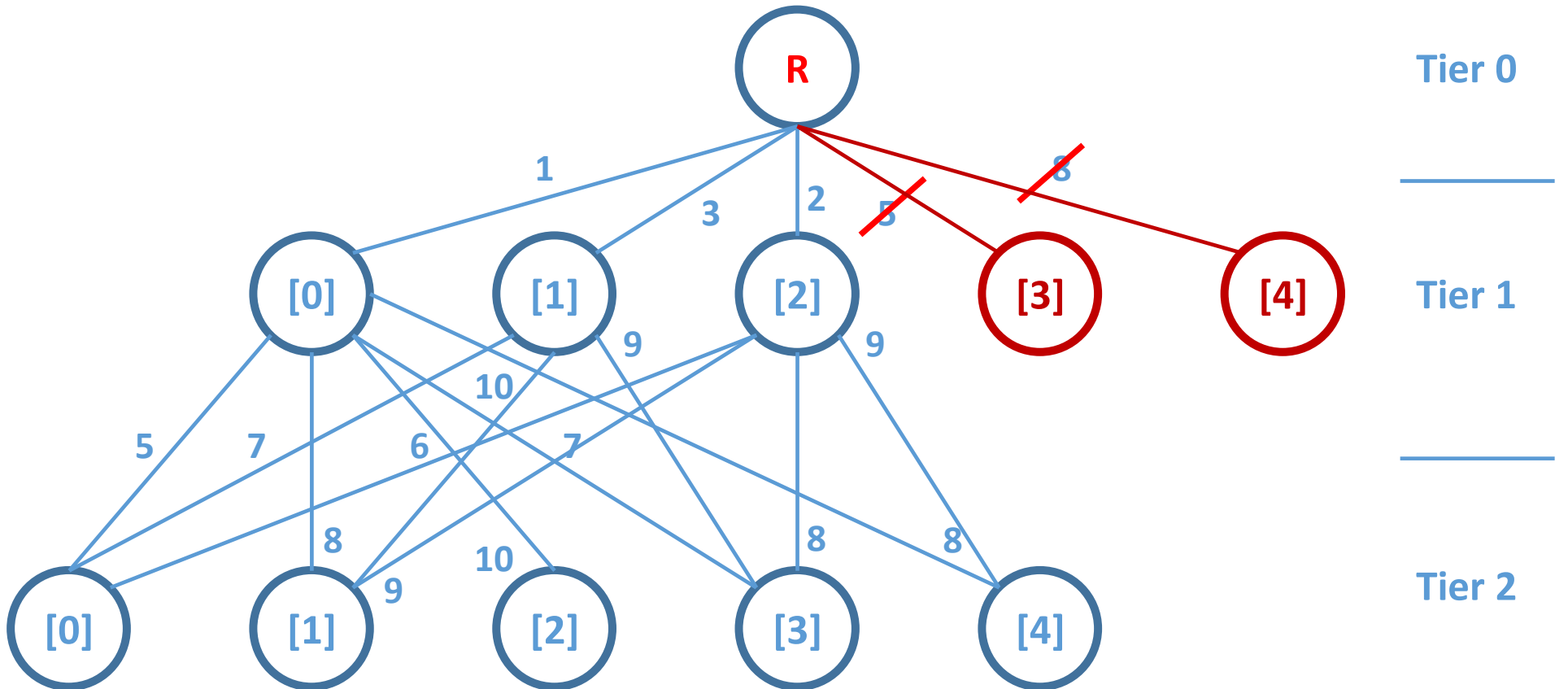
[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

[[1, 1], 10]

Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

~~[[3], 5]~~

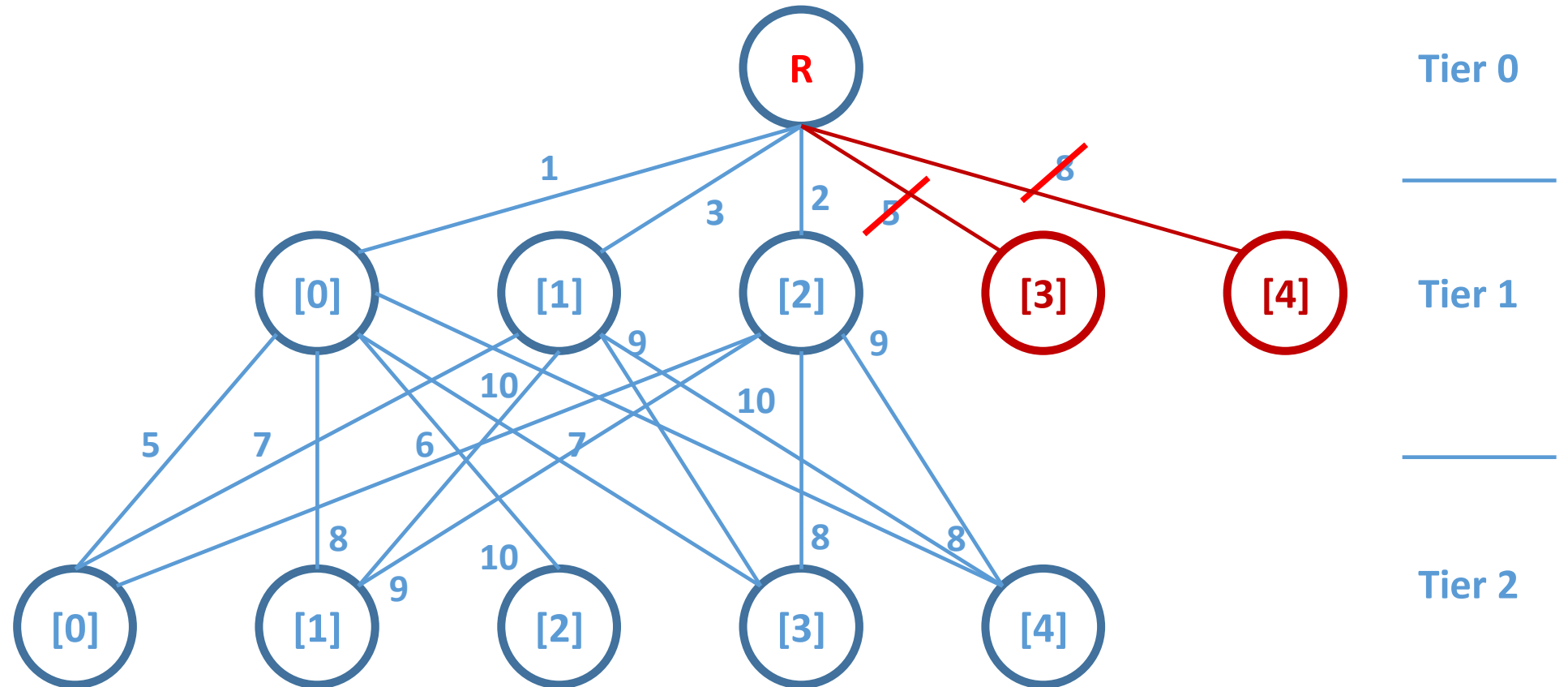
~~[[4], 8]~~

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

[[1, 1], 10]

[[1, 4], 10]

Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

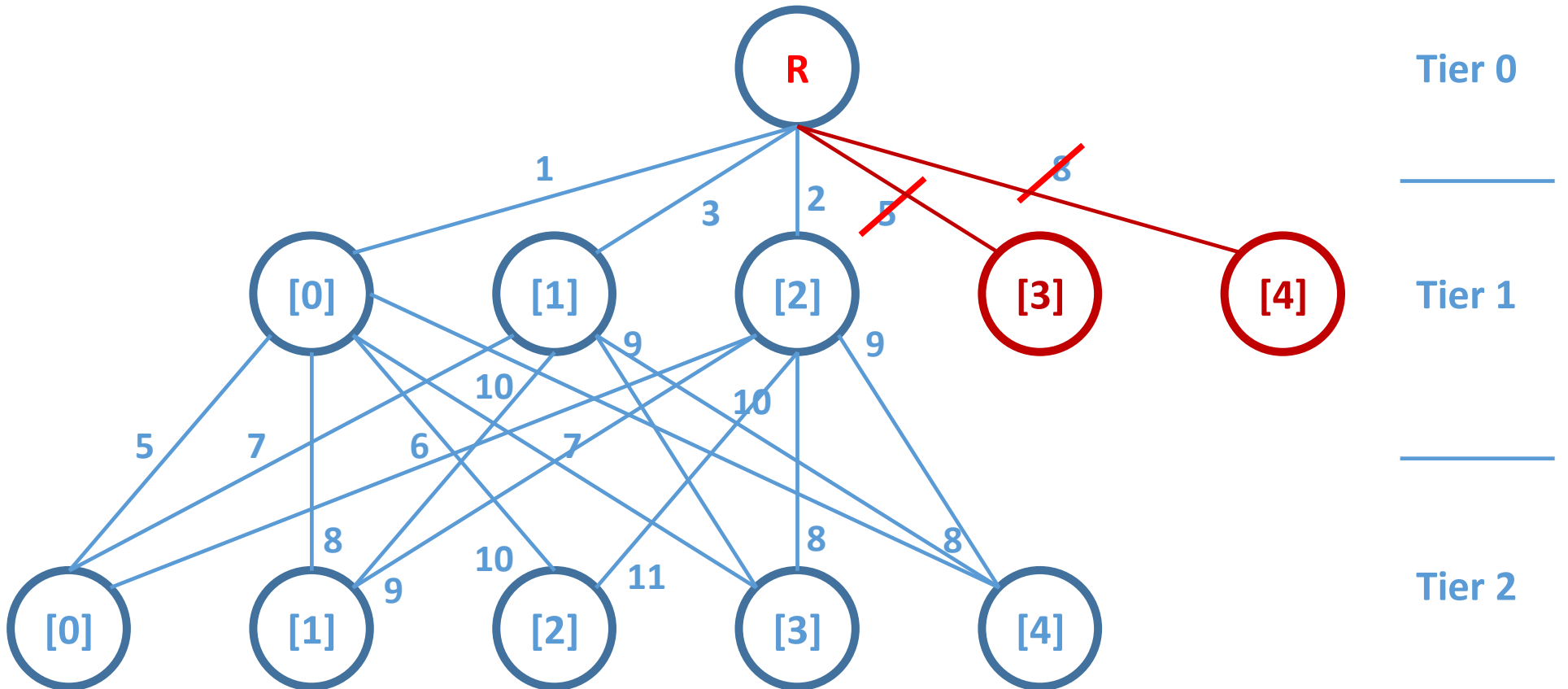
[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

[[1, 1], 10]

[[1, 4], 10]

[[2, 2], 11]

Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

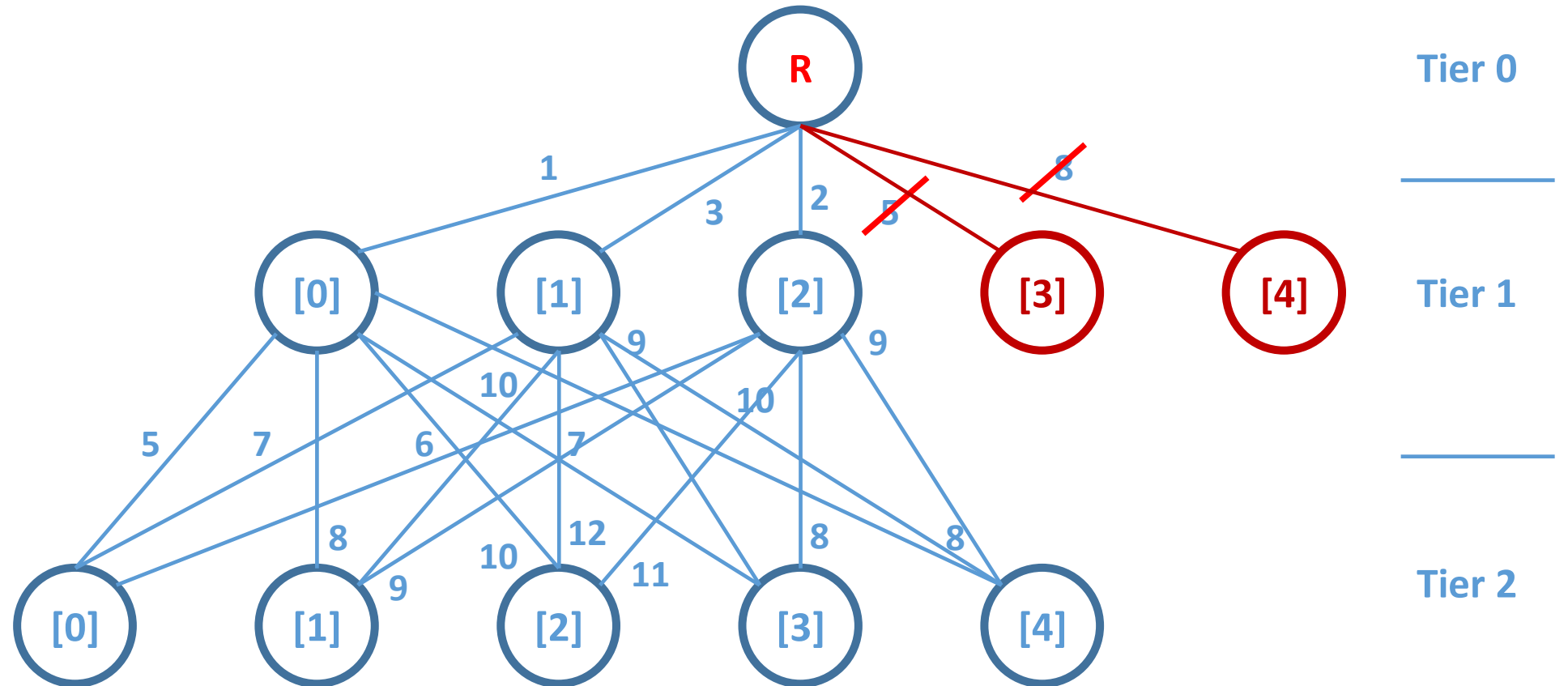
[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]



[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

[[1, 1], 10]

[[1, 4], 10]

[[2, 2], 11]

[[1, 2], 12]

Beam Search Algorithm ($\beta = 3$)

Paths pruned after tier 0:

[[3], 5]

[[4], 8]

Paths kept after tier 0:

[[0], 1]

[[2], 2]

[[1], 3]

Paths pruned after tier 1:

[[1, 0], 7]

[[0, 1], 8]

[[0, 4], 8]

[[2, 3], 8]

[[2, 1], 9]

[[2, 4], 9]

[[1, 3], 9]

[[0, 2], 10]

[[1, 1], 10]

[[1, 4], 10]

[[2, 2], 11]

[[1, 2], 12]

The best 'beta' paths:

[[0, 0], 5]

[[2, 0], 6]

[[0, 3], 7]

