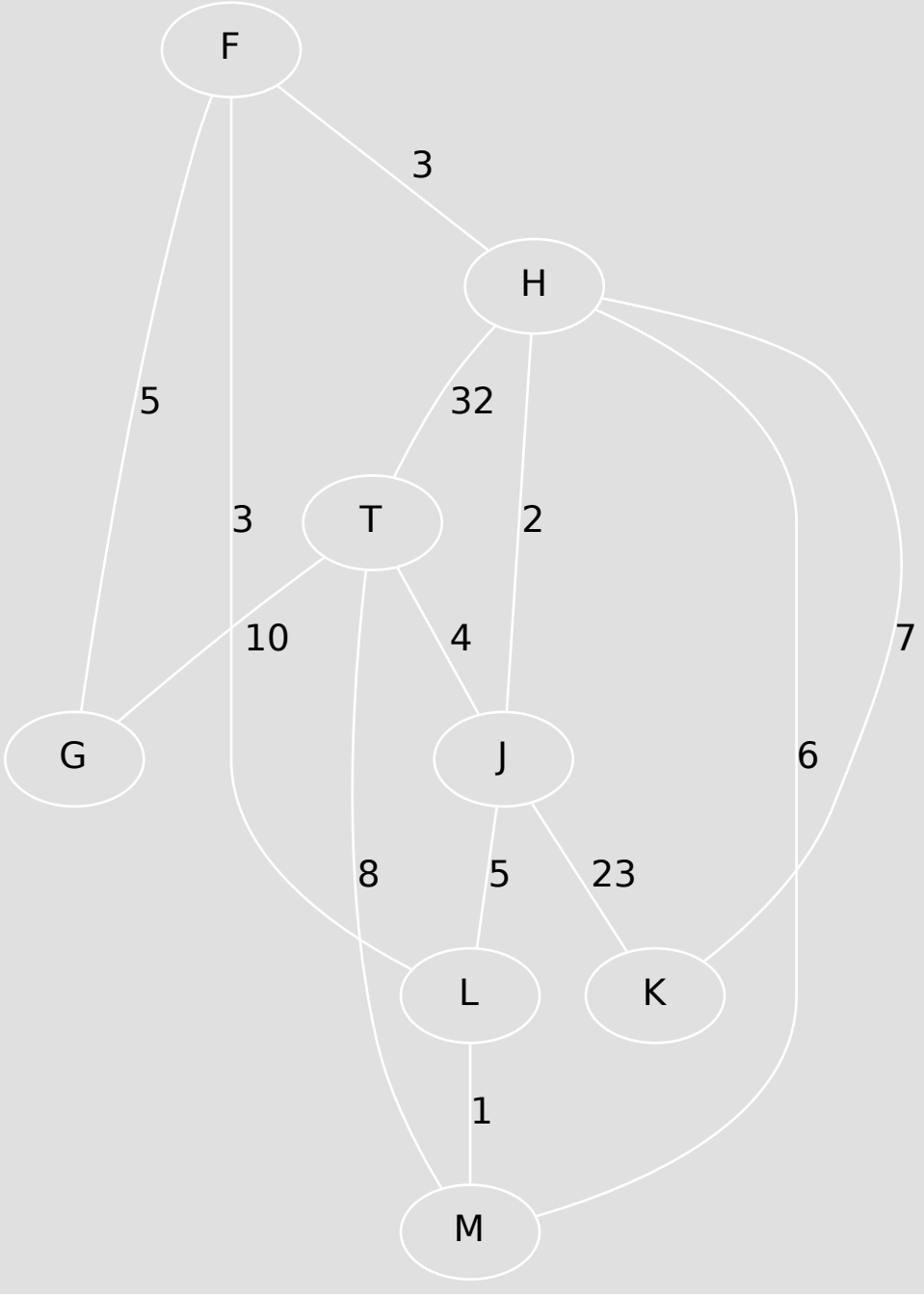
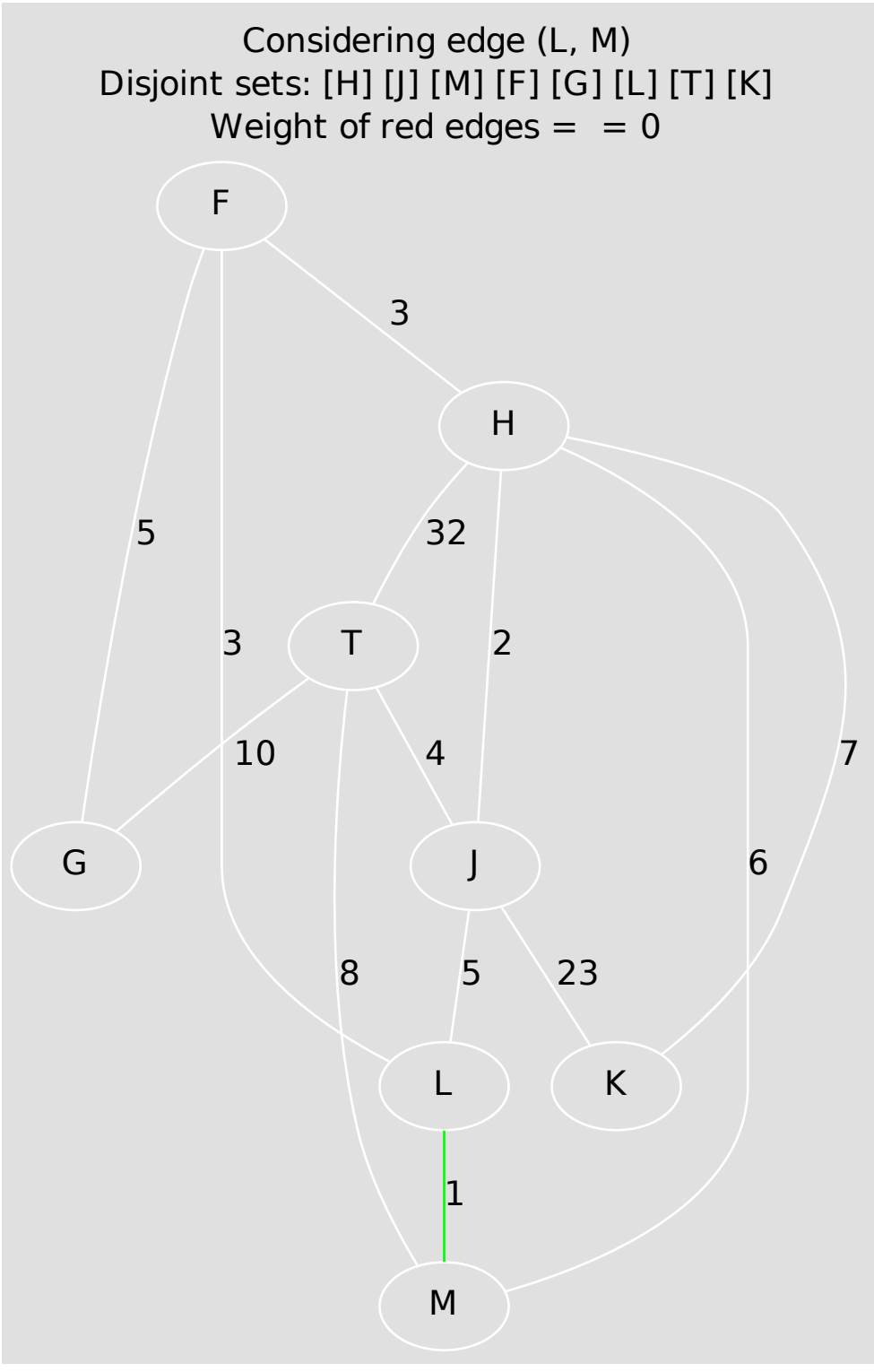
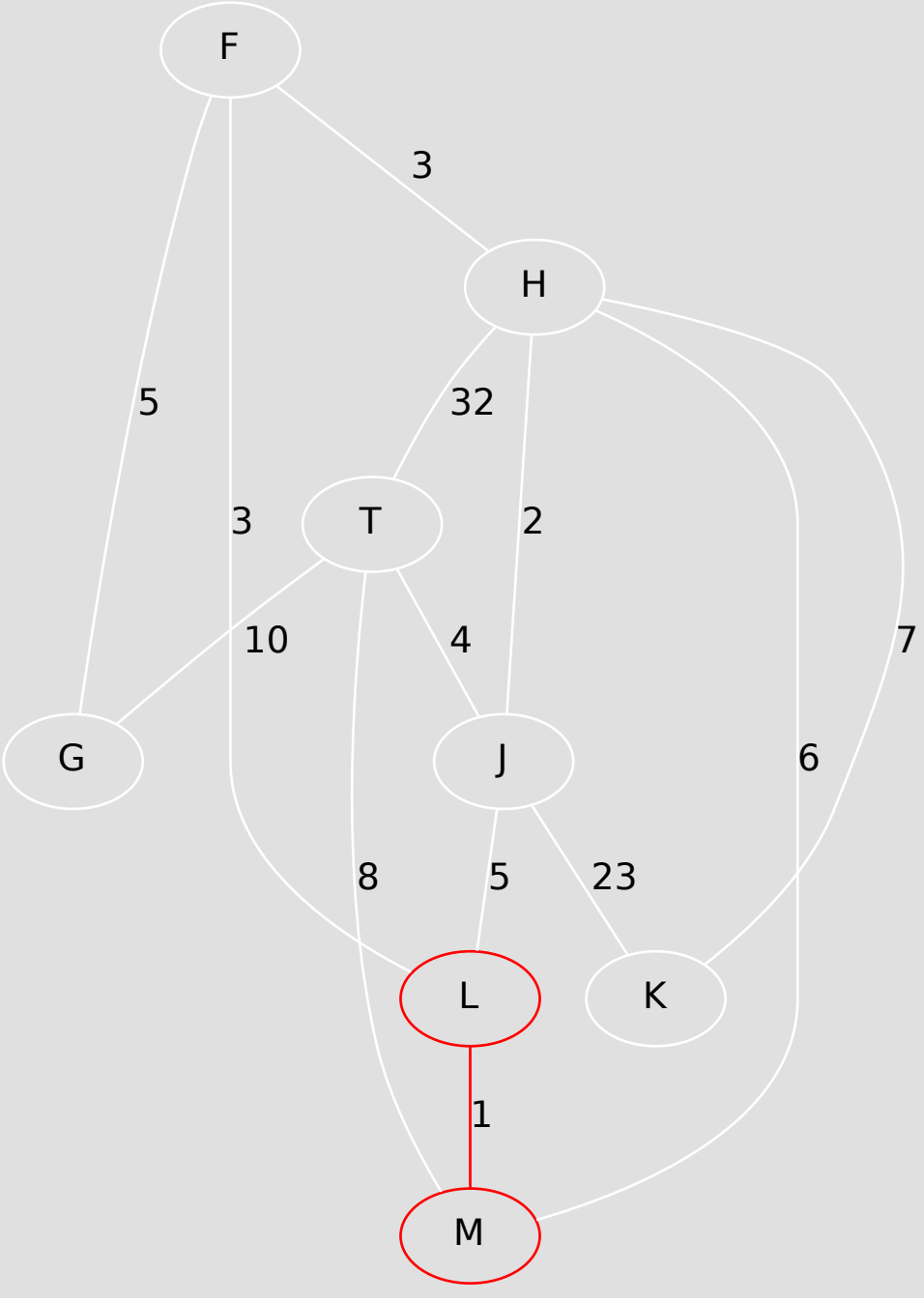
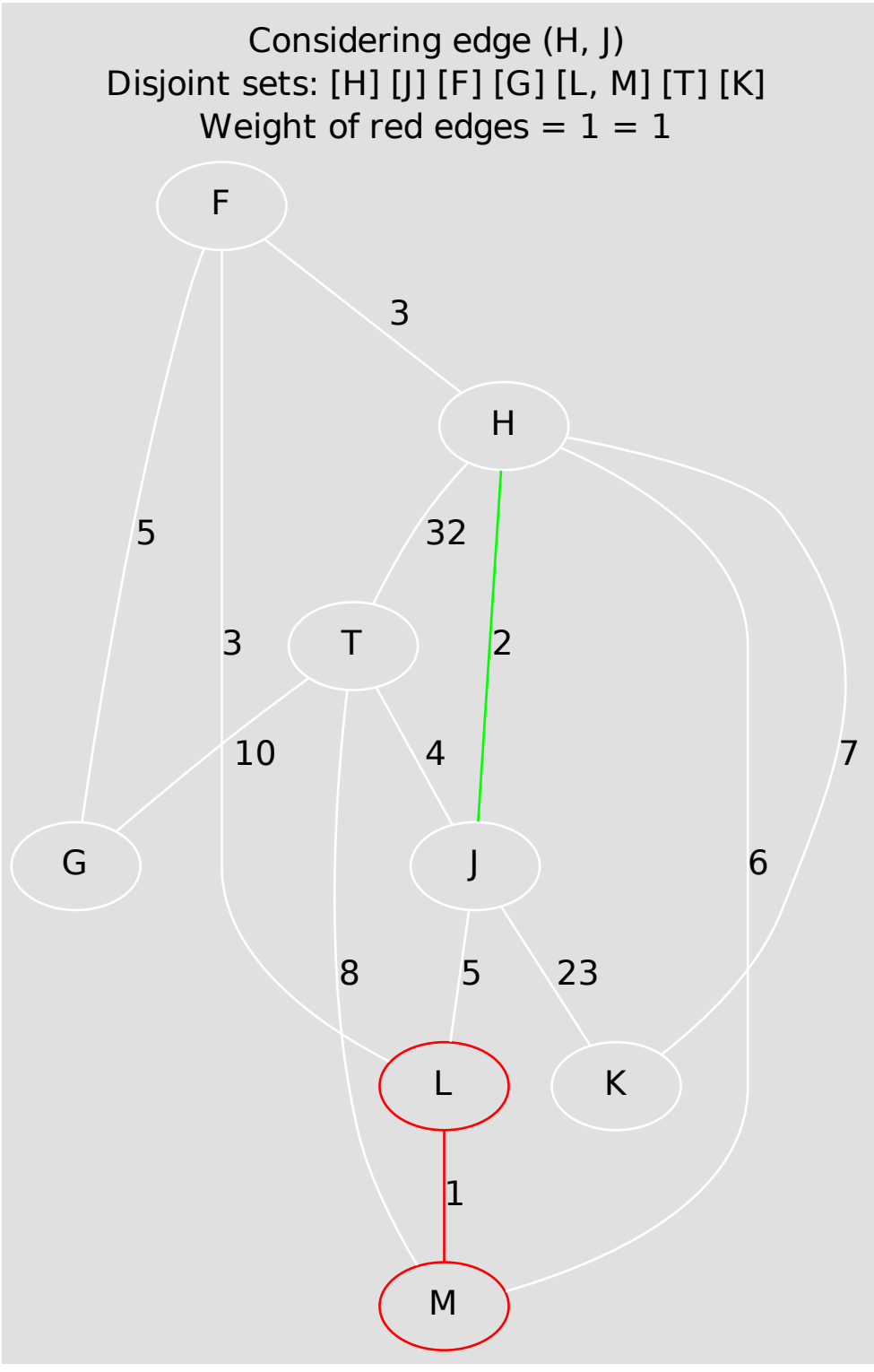
Kruskal MST: initialized the graph and sorted the edges.
Disjoint sets: [H] [J] [M] [F] [G] [L] [T] [K]
Weight of red edges = = 0

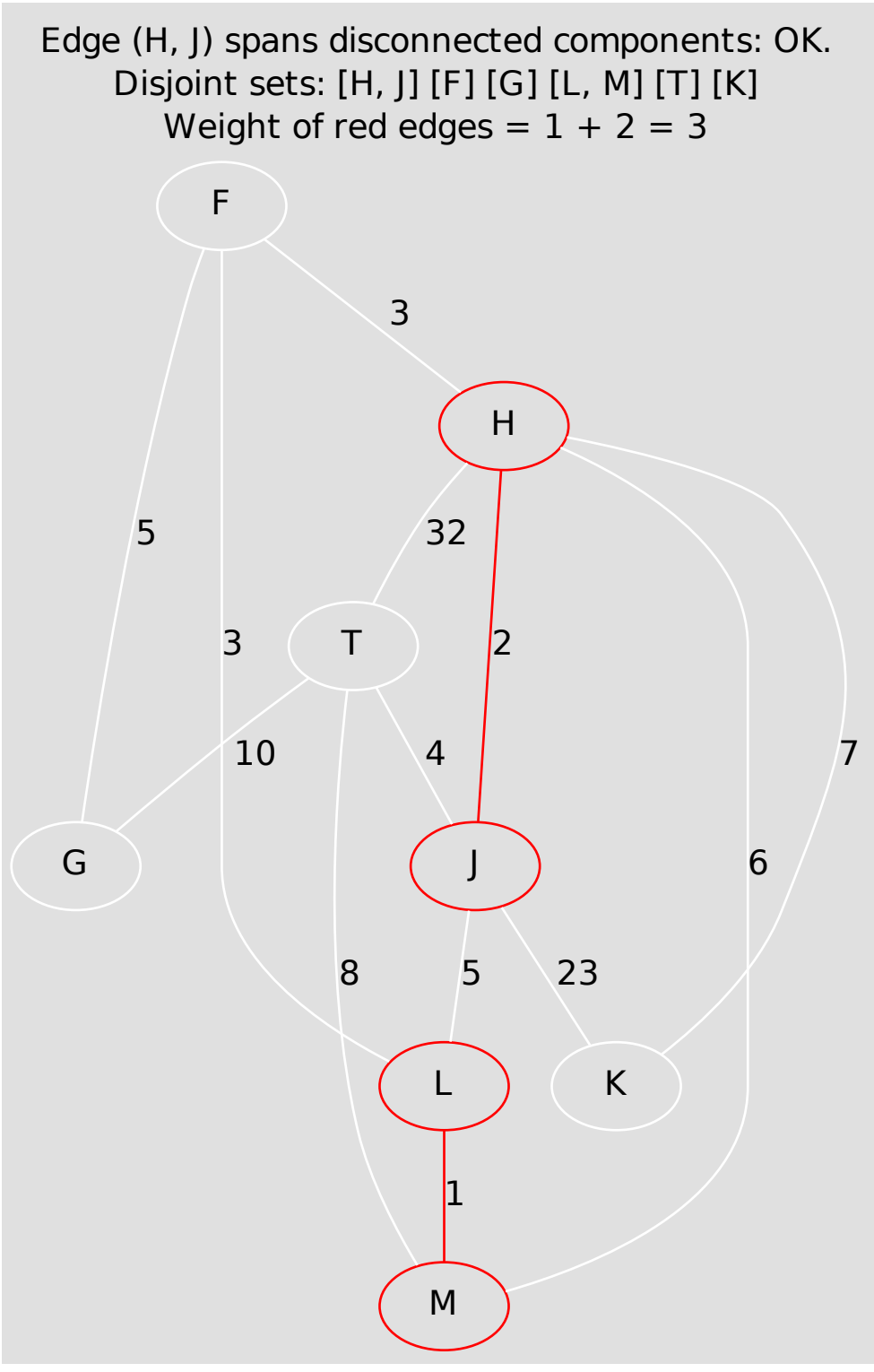


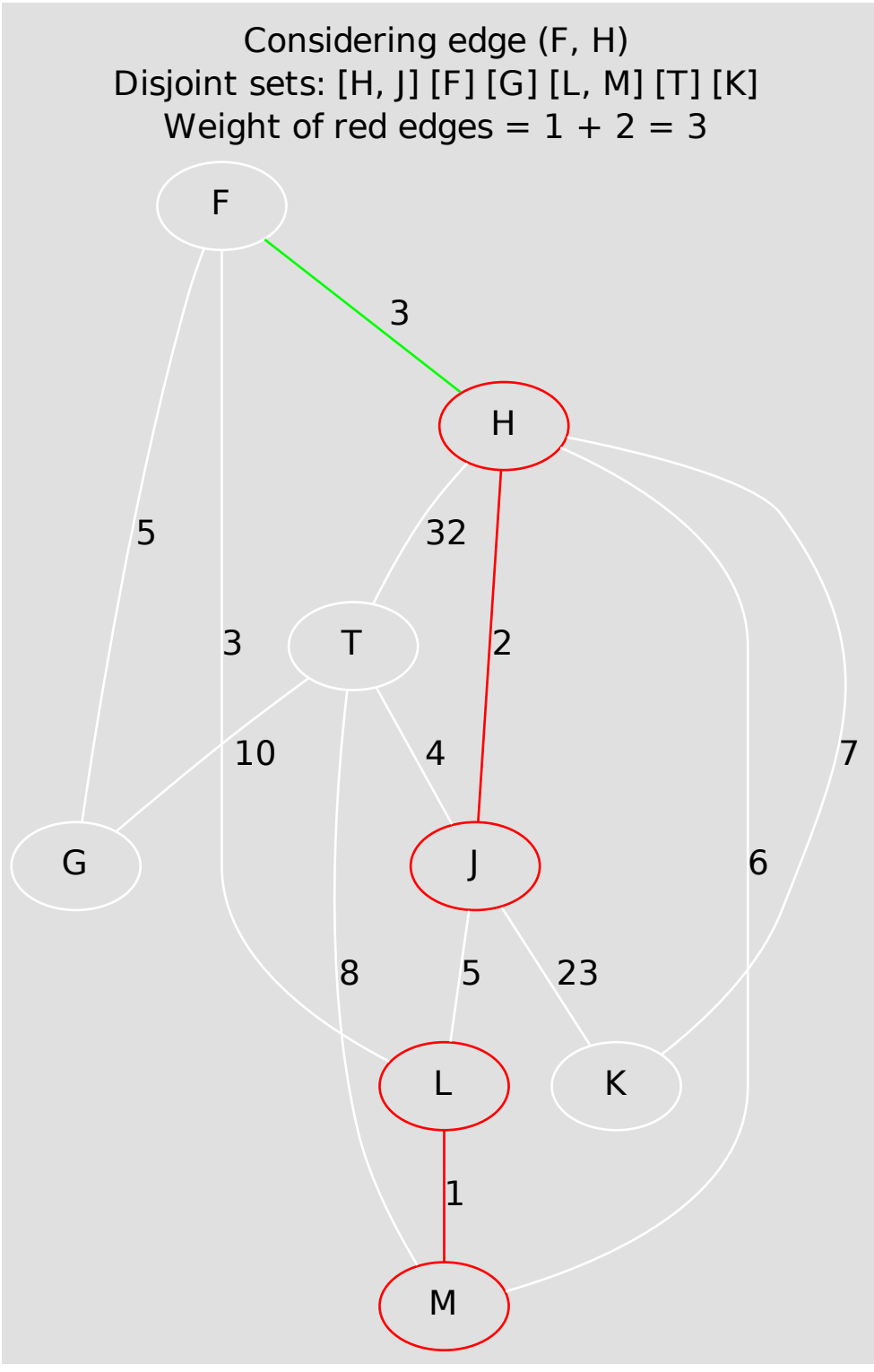

Considering edge (L, M)
Disjoint sets: [H] [J] [M] [F] [G] [L] [T] [K]
Weight of red edges = = 0
F
3
H
5
32
3
T
2
10
4
7
G
J
6
8
5
23
L
K
1
M

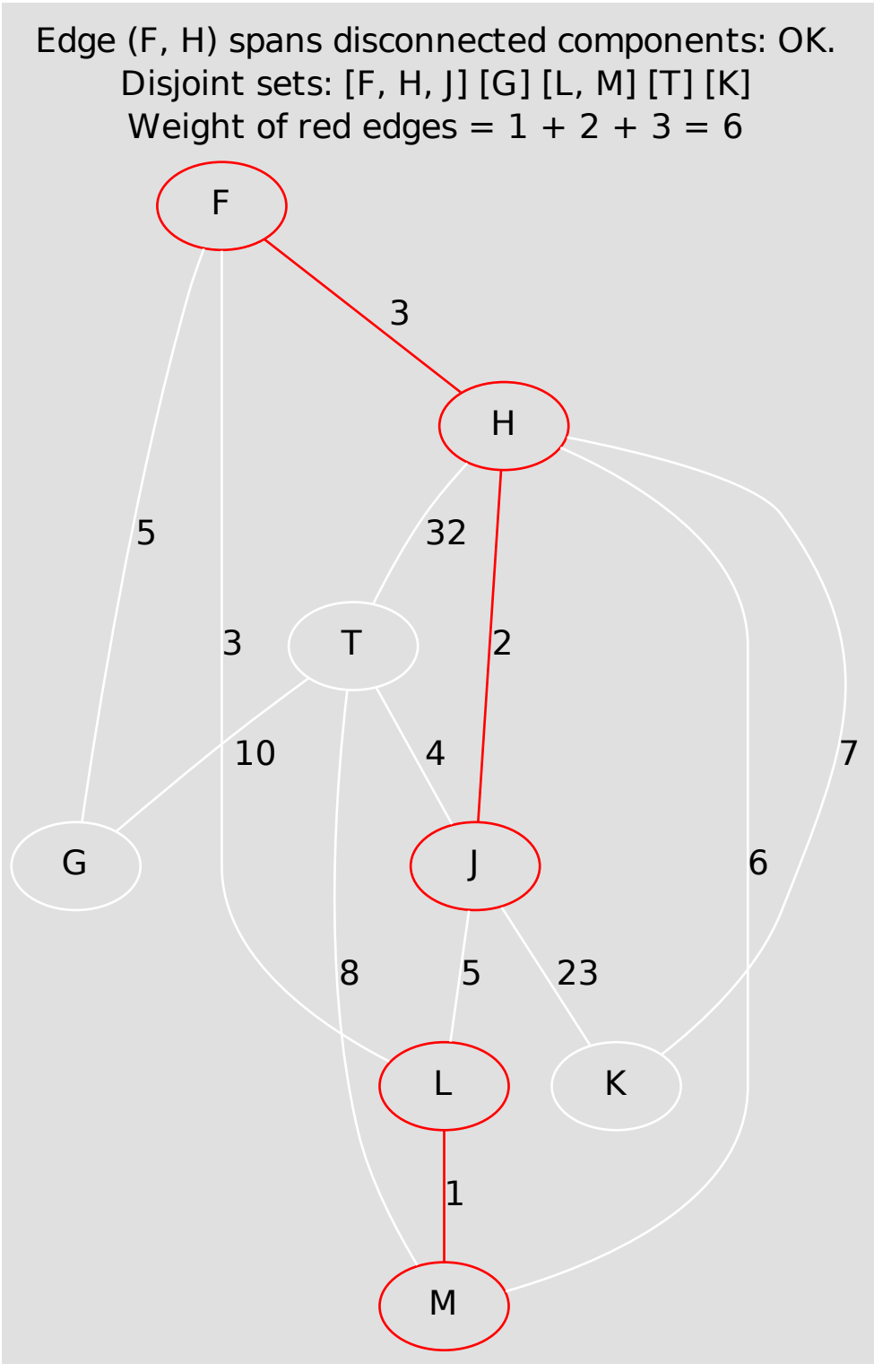
Edge (L, M) spans disconnected components: OK.
Disjoint sets: [H] [J] [F] [G] [L, M] [T] [K]
Weight of red edges = 1 = 1

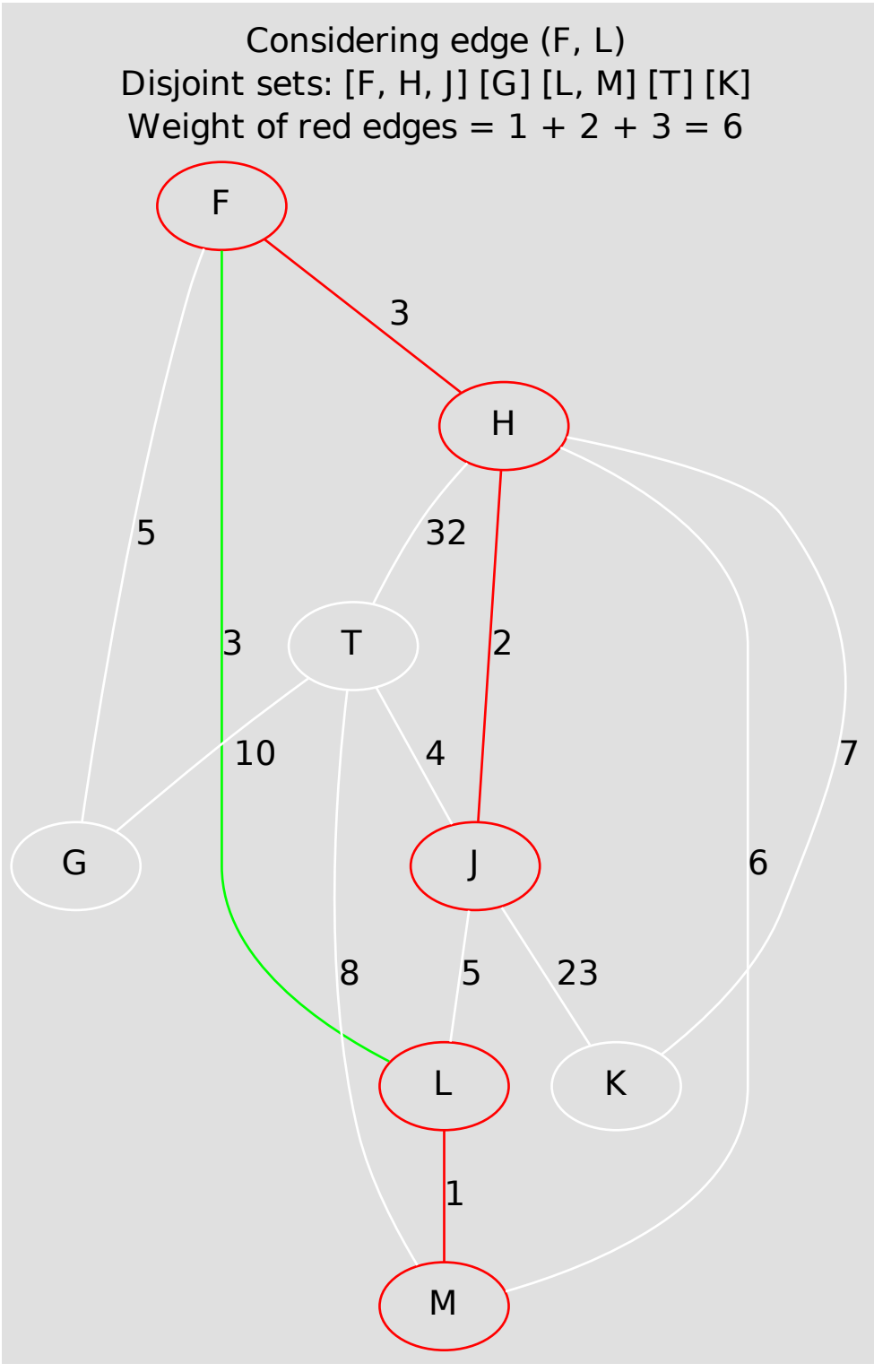


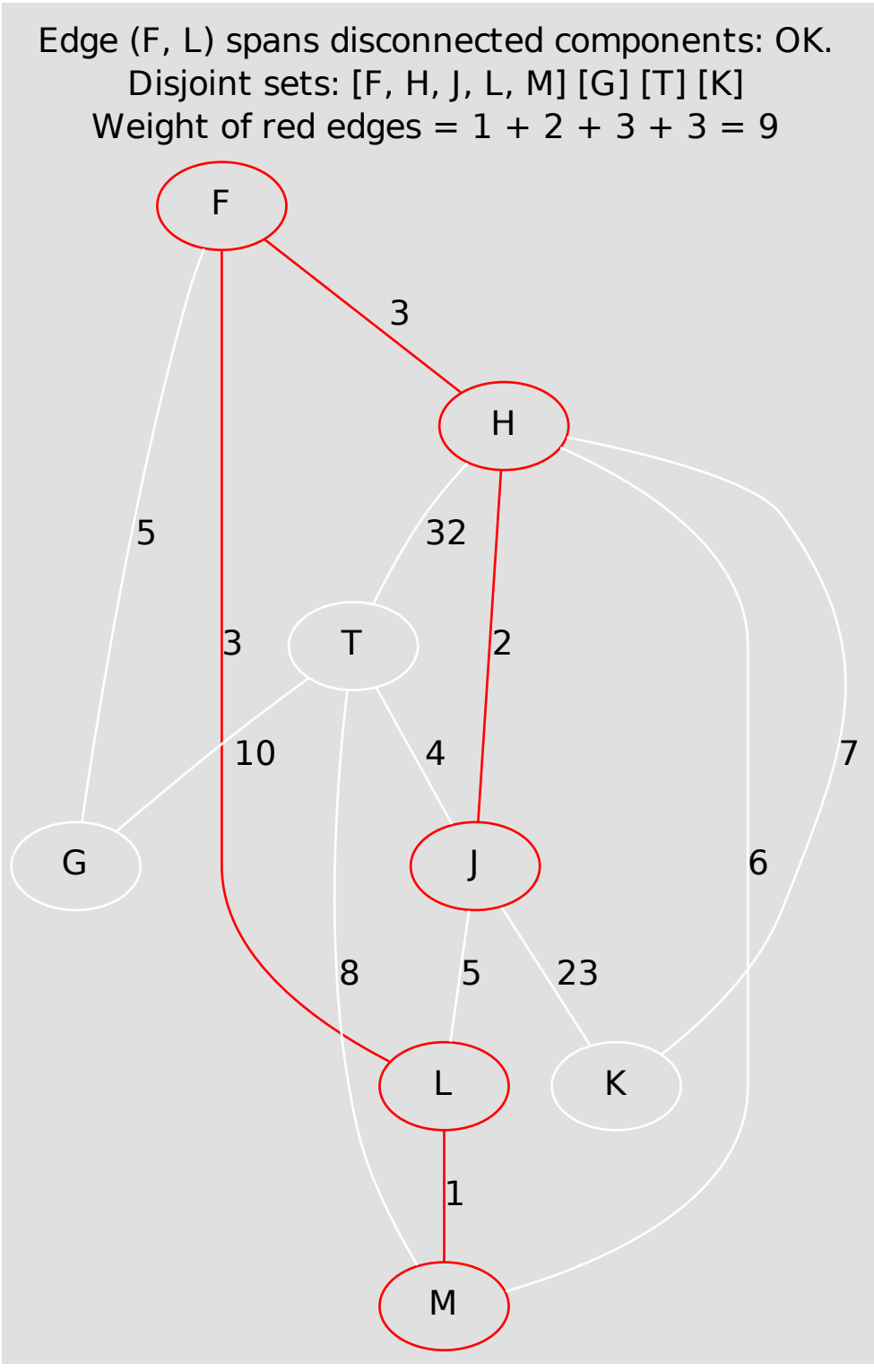

Considering edge (H, J)
Disjoint sets: [H] [J] [F] [G] [L, M] [T] [K]
Weight of red edges = 1 = 1
F
3
H
5
32
3
T
2
10
4
7
G
J
6
8
5
23
L
K
1
M

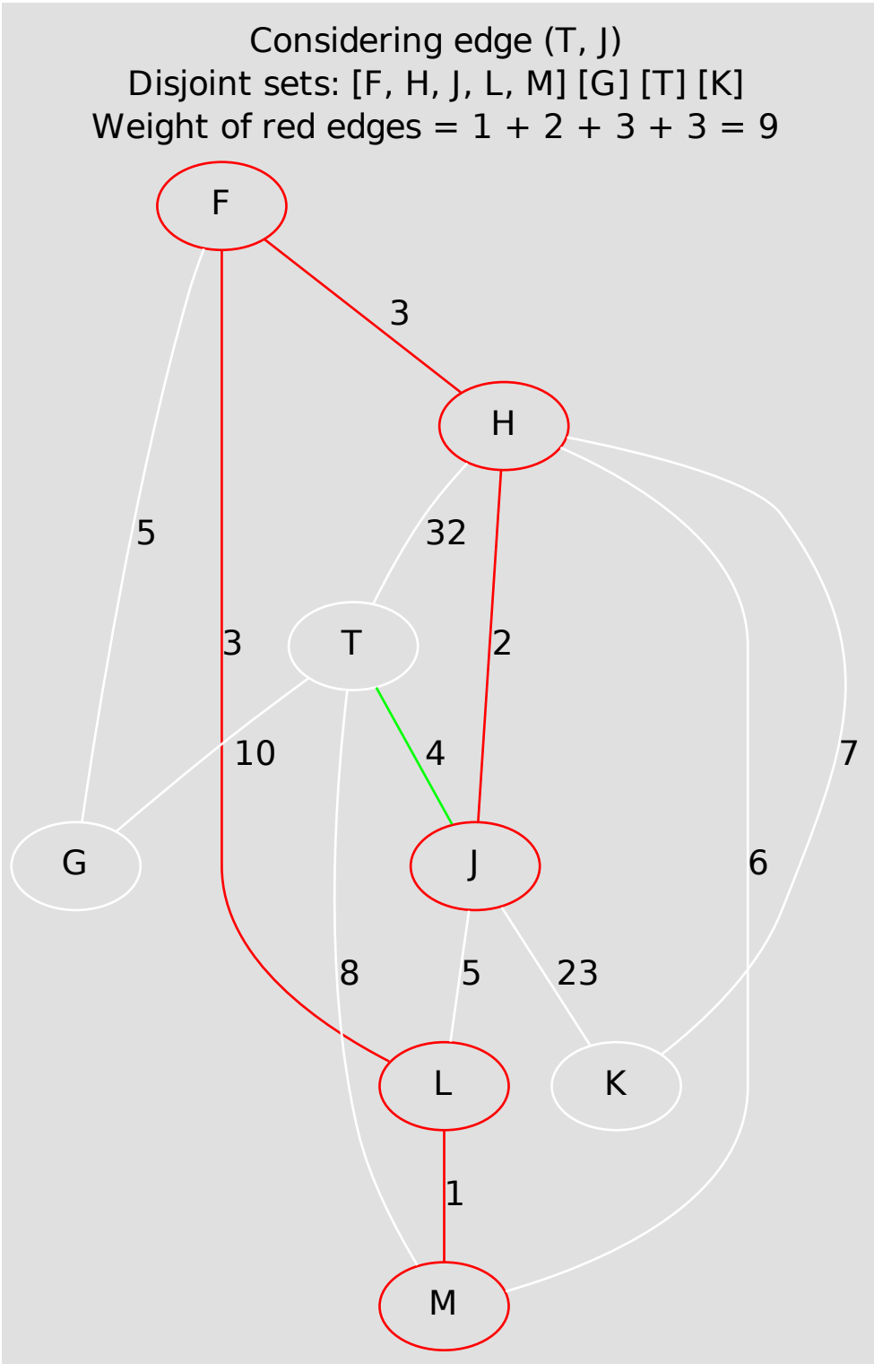

Edge (H, J) spans disconnected components: OK.
Disjoint sets: [H, J] [F] [G] [L, M] [T] [K]
Weight of red edges = 1 + 2 = 3
F
3
H
5
32
3
T
2
10
4
7
G
J
6
8
5
23
L
K
1
M


Considering edge (F, H)
Disjoint sets: [H, J] [F] [G] [L, M] [T] [K]
Weight of red edges = 1 + 2 = 3
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

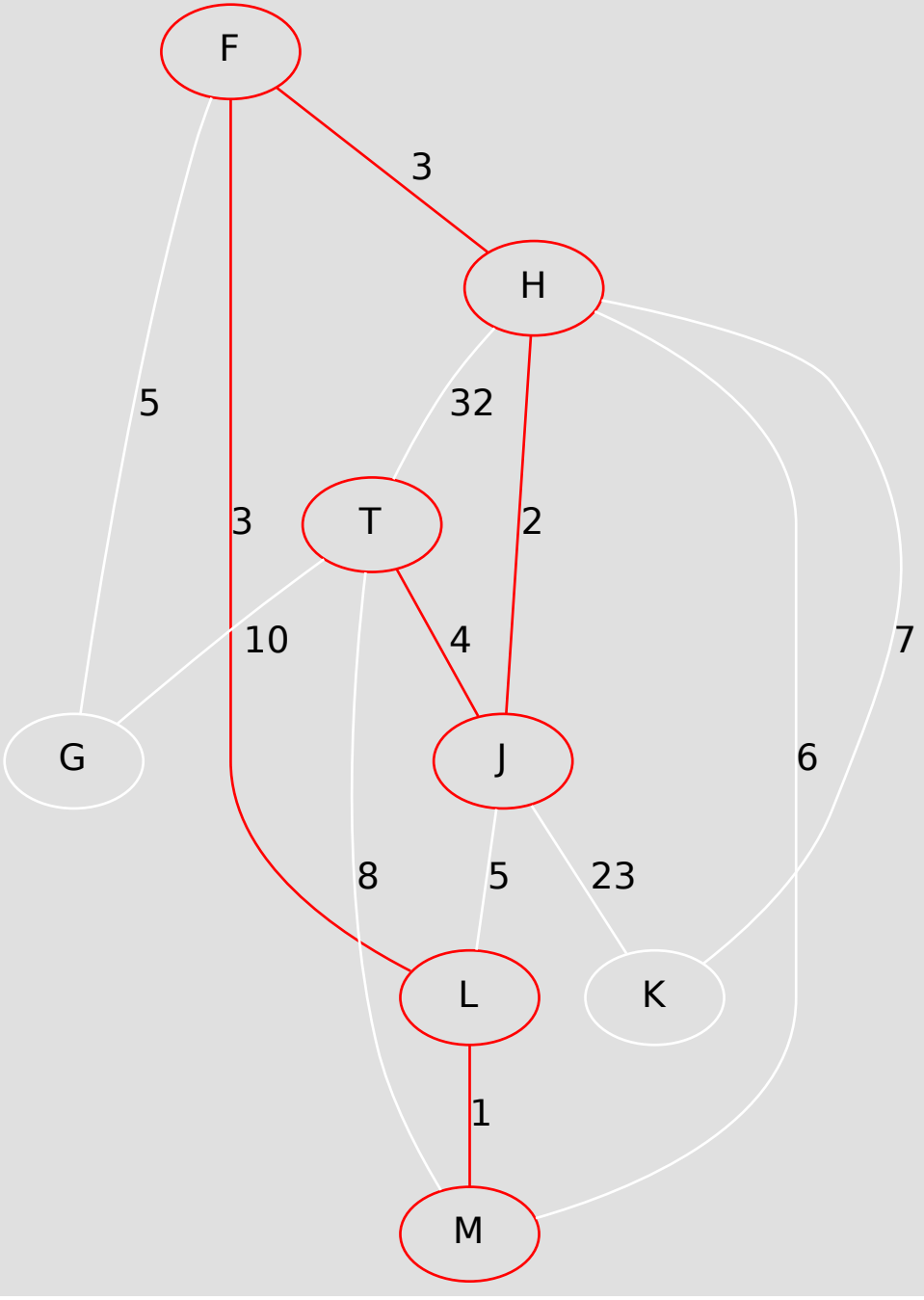

Edge (F, H) spans disconnected components: OK.
Disjoint sets: [F, H, J] [G] [L, M] [T] [K]
Weight of red edges = 1 + 2 + 3 = 6
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

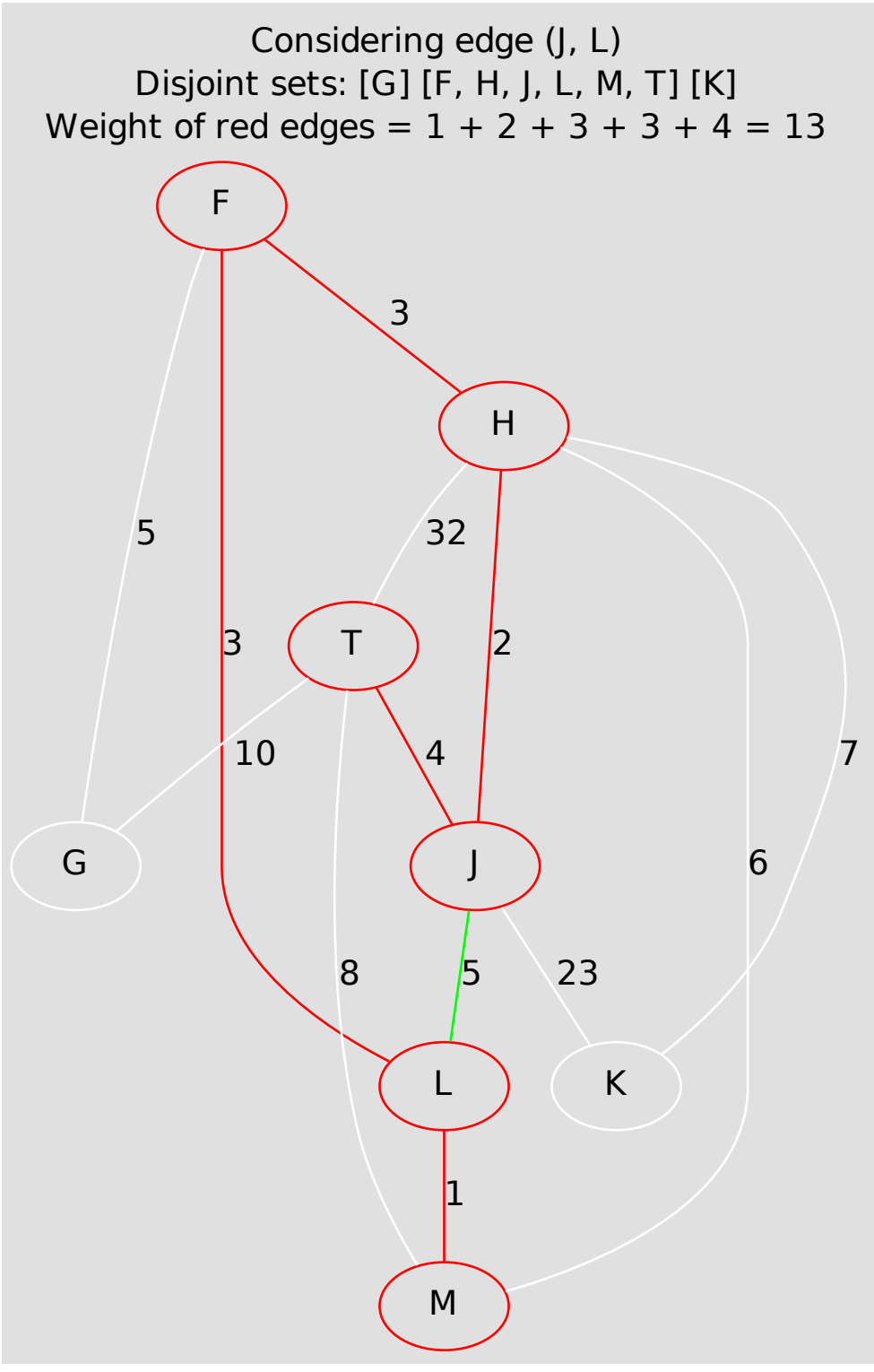

Considering edge (F, L)
Disjoint sets: [F, H, J] [G] [L, M] [T] [K]
Weight of red edges = 1 + 2 + 3 = 6
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1


Edge (F, L) spans disconnected components: OK.
Disjoint sets: [F, H, J, L, M] [G] [T] [K]
Weight of red edges = 1 + 2 + 3 + 3 = 9
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

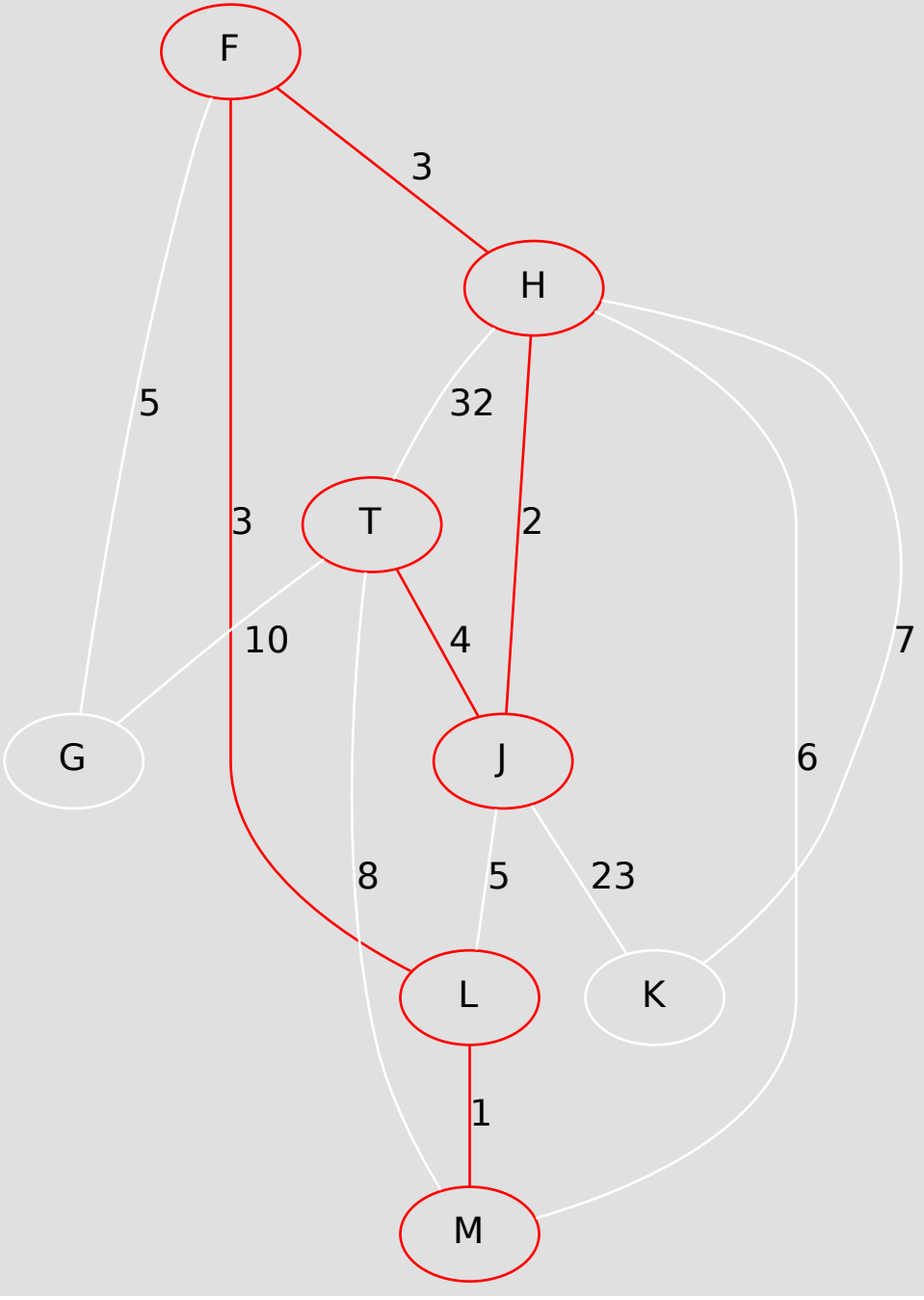

Considering edge (T, J)
Disjoint sets: [F, H, J, L, M] [G] [T] [K]
Weight of red edges = 1 + 2 + 3 + 3 = 9
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

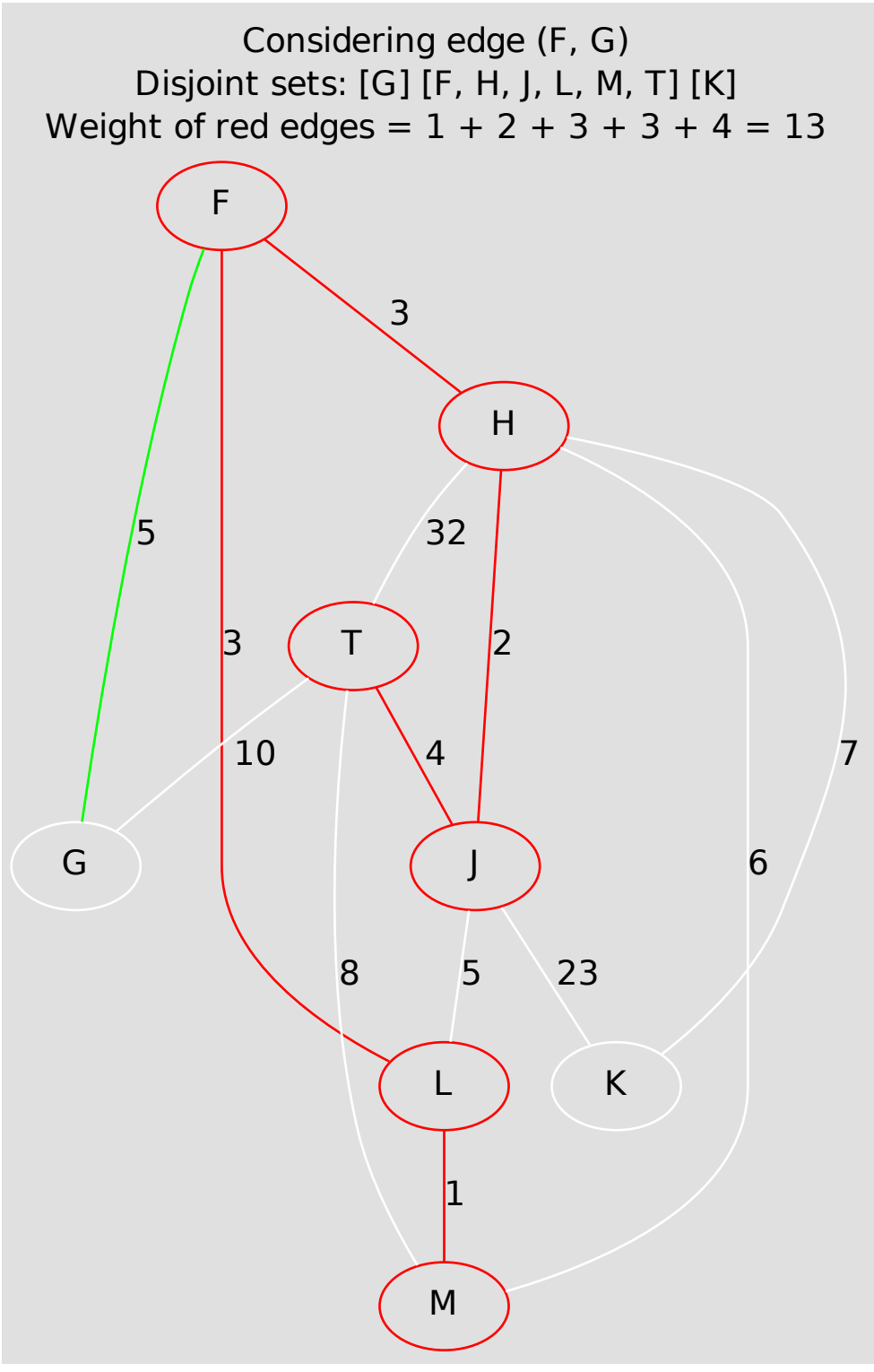
Edge (T, J) spans disconnected components: OK.
Disjoint sets: [G] [F, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 = 13

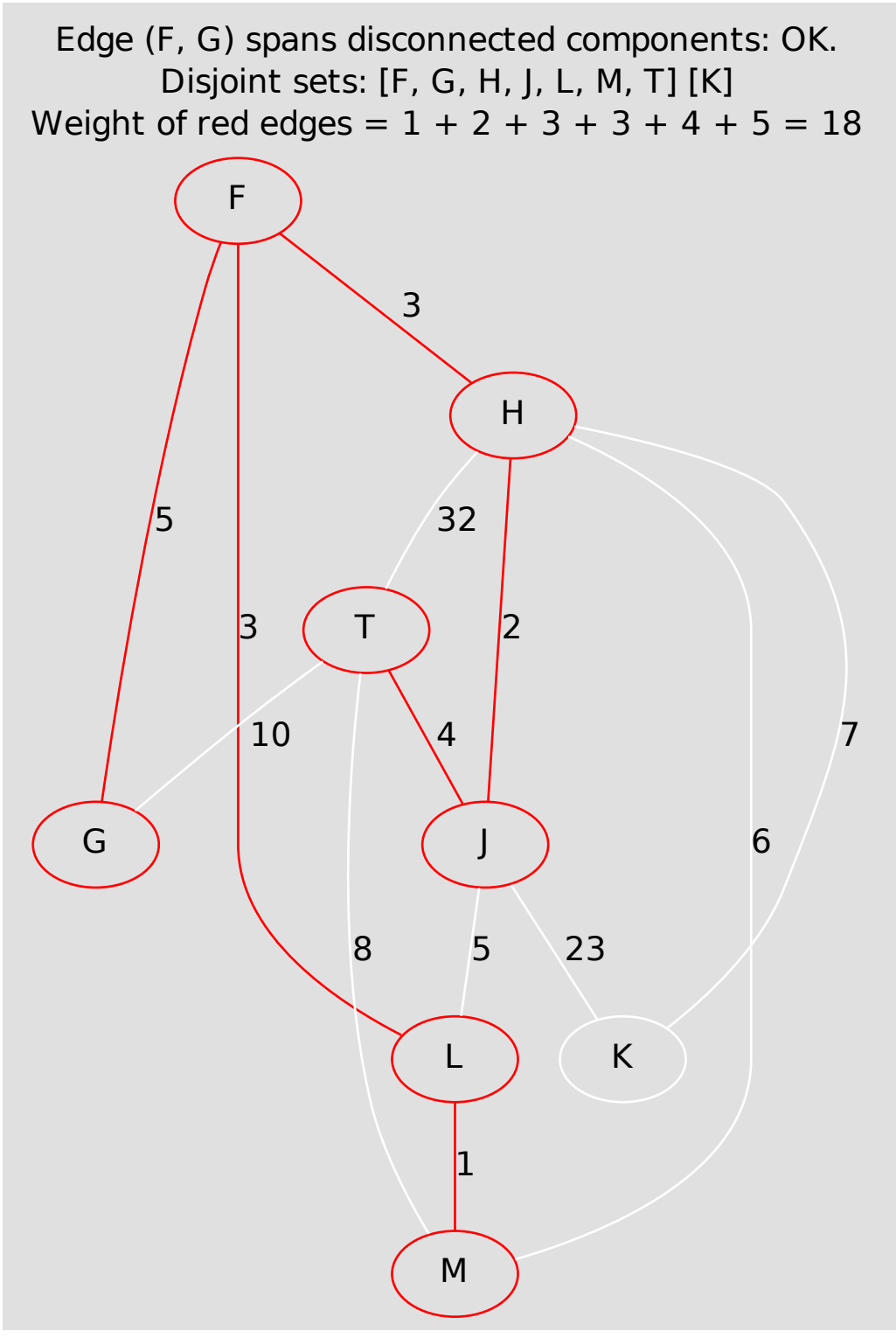


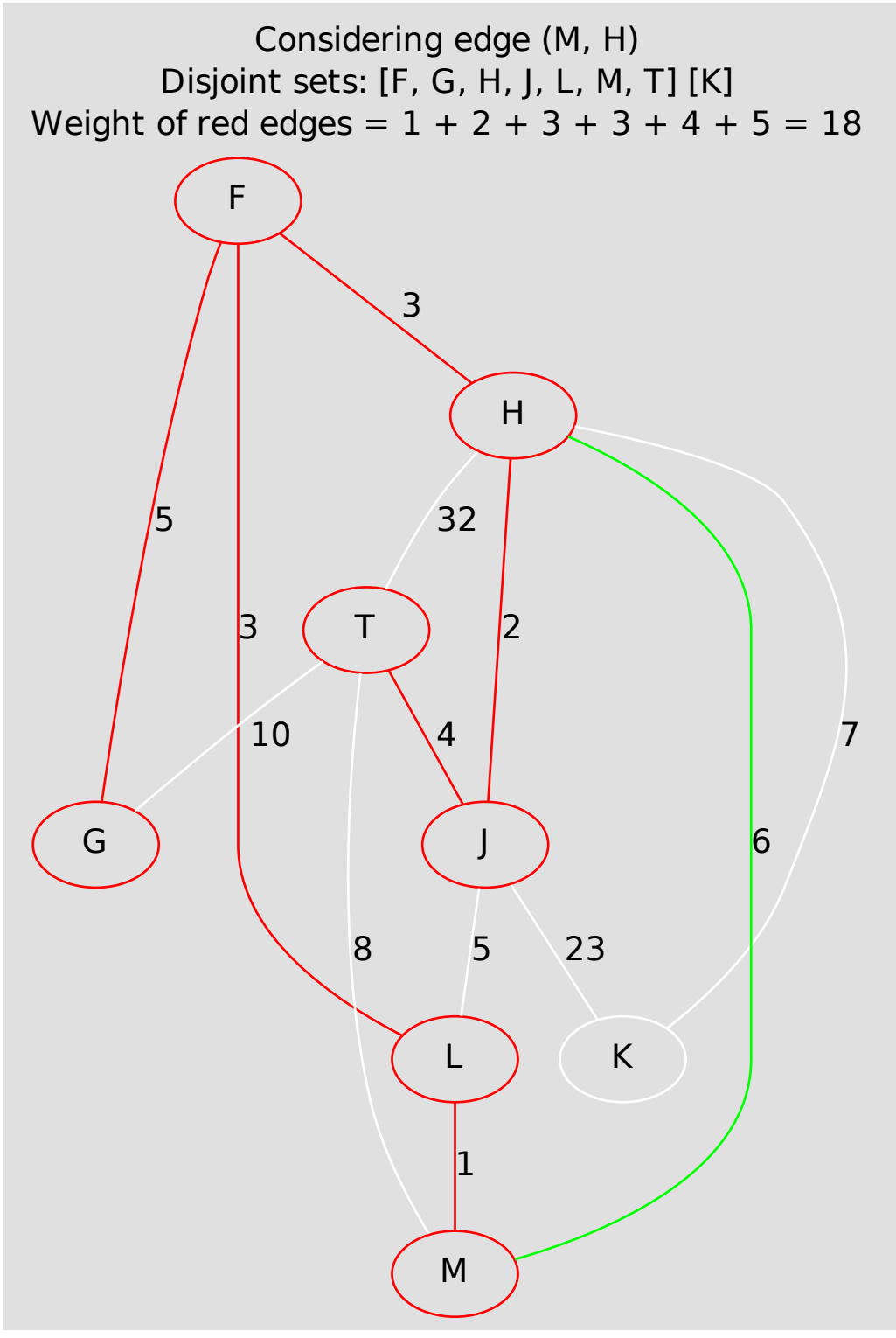

Considering edge (J, L)
Disjoint sets: [G] [F, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 = 13
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

Edge (J, L) would introduce a cycle. Forget it.
Disjoint sets: [G] [F, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 = 13

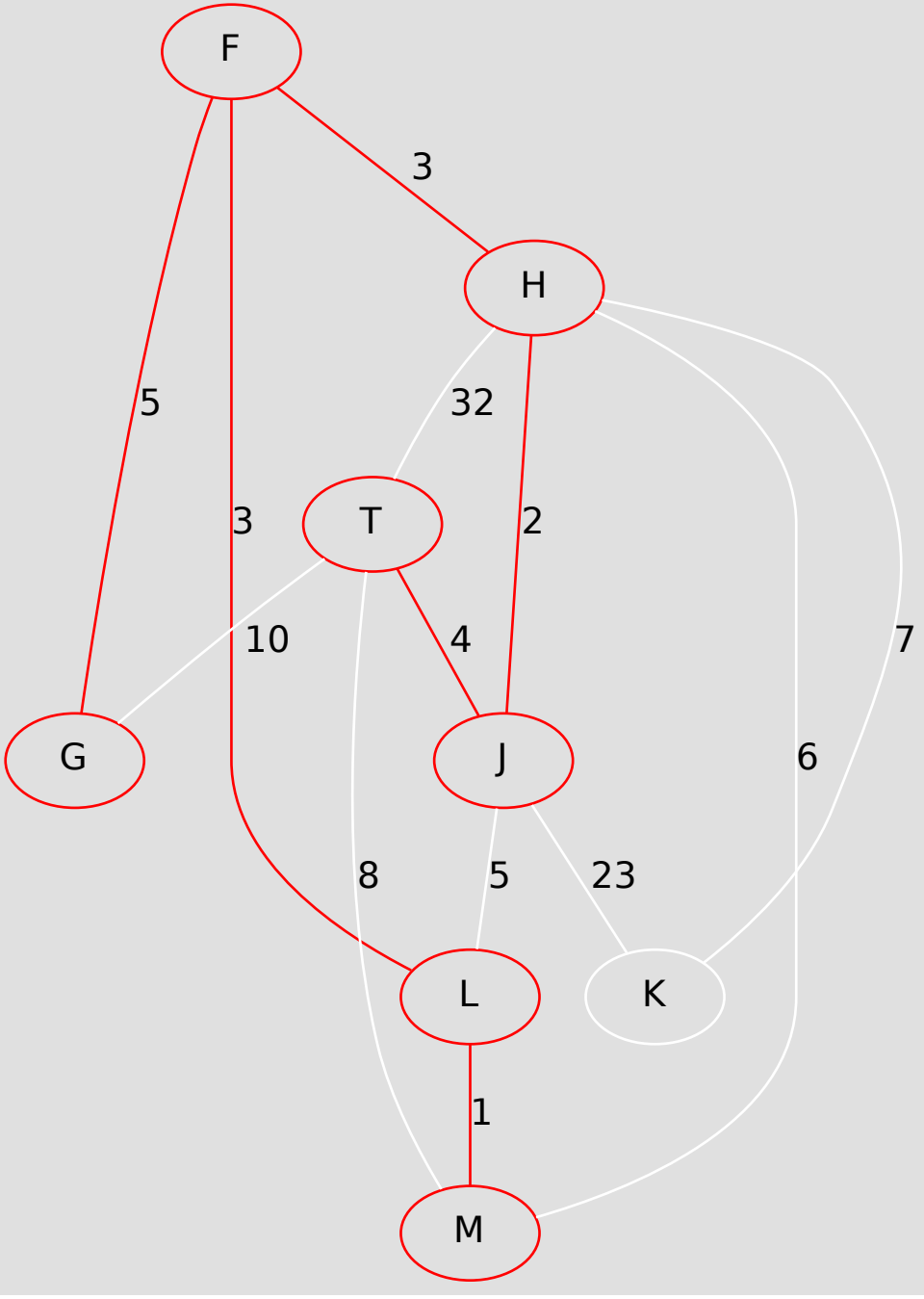


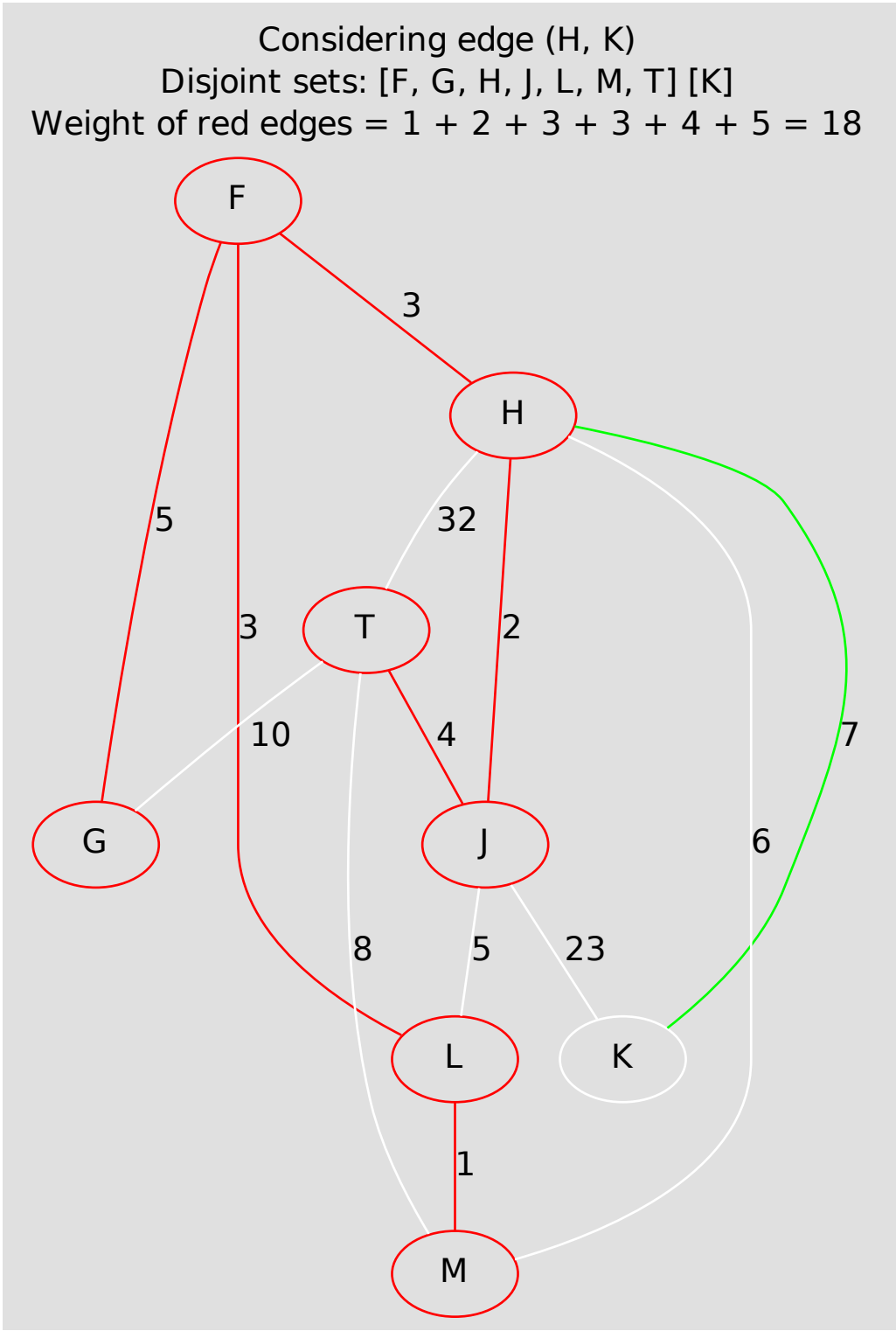

Considering edge (F, G)
Disjoint sets: [G] [F, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 = 13
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1


Edge (F, G) spans disconnected components: OK.
Disjoint sets: [F, G, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 = 18
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

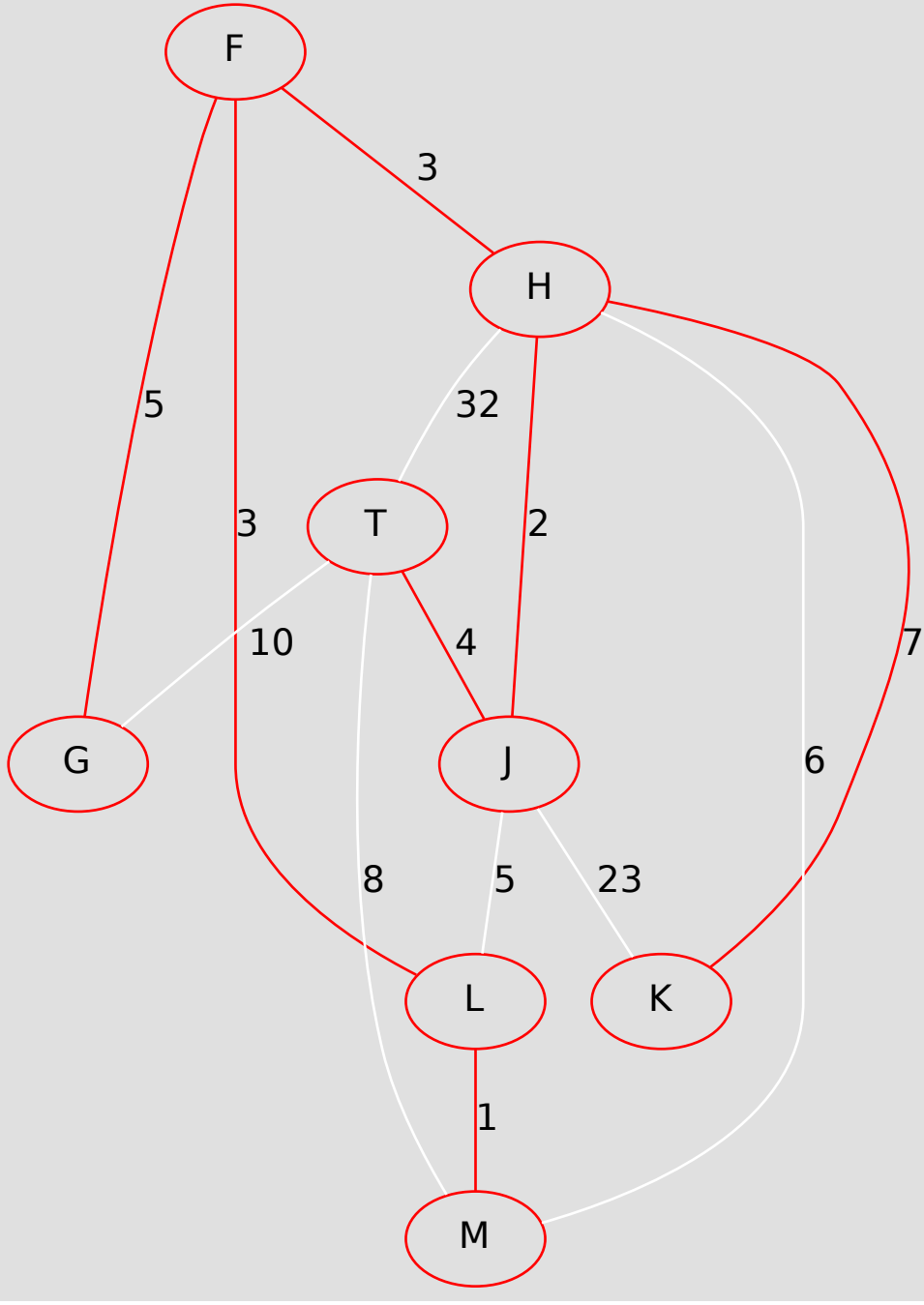

Considering edge (M, H)
Disjoint sets: [F, G, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 = 18
F
3
H
5
32
3
T
2
10
4
7
G
J
6
8
5
23
L
K
1
M

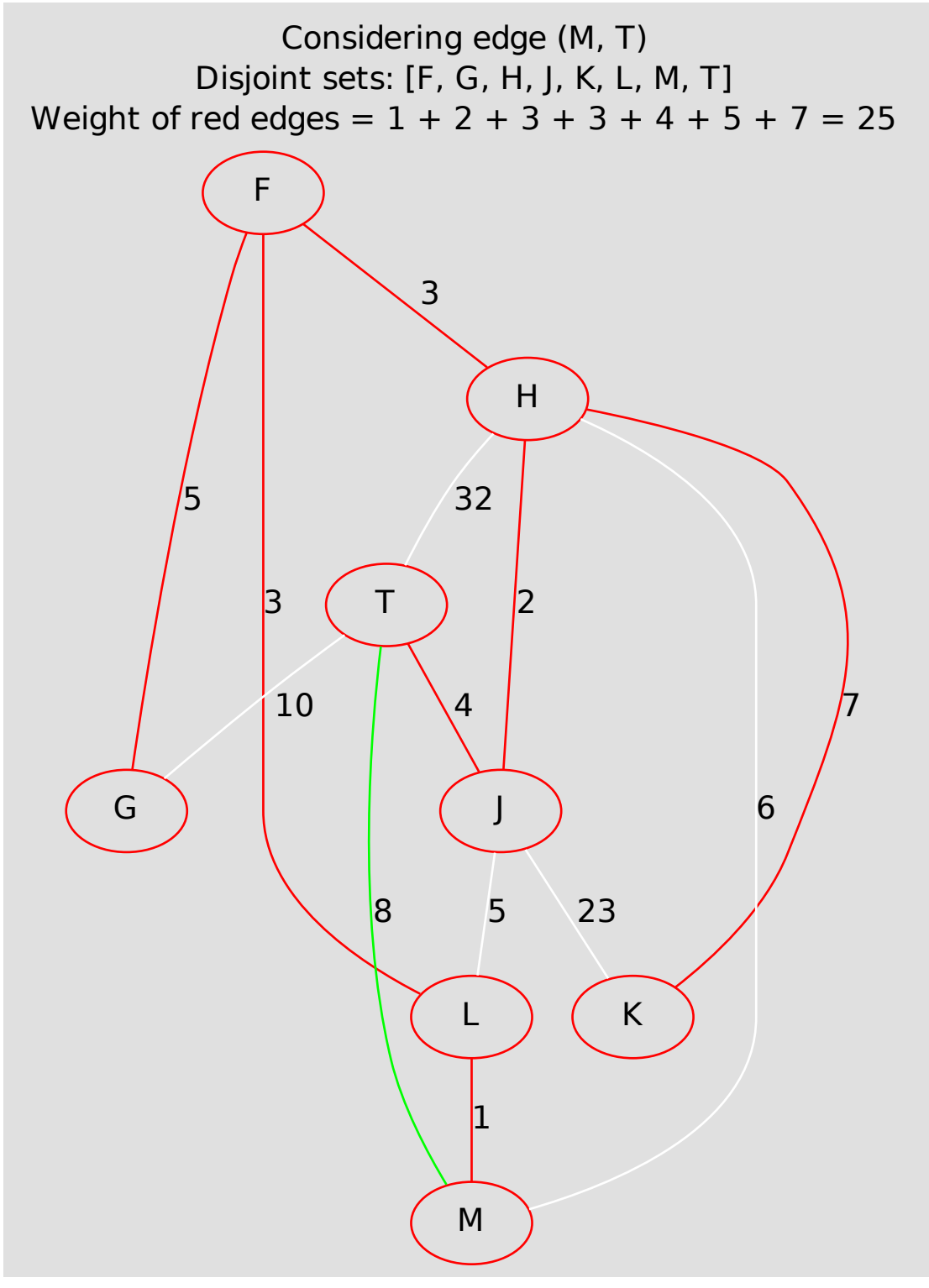
Edge (M, H) would introduce a cycle. Forget it.
Disjoint sets: [F, G, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 = 18



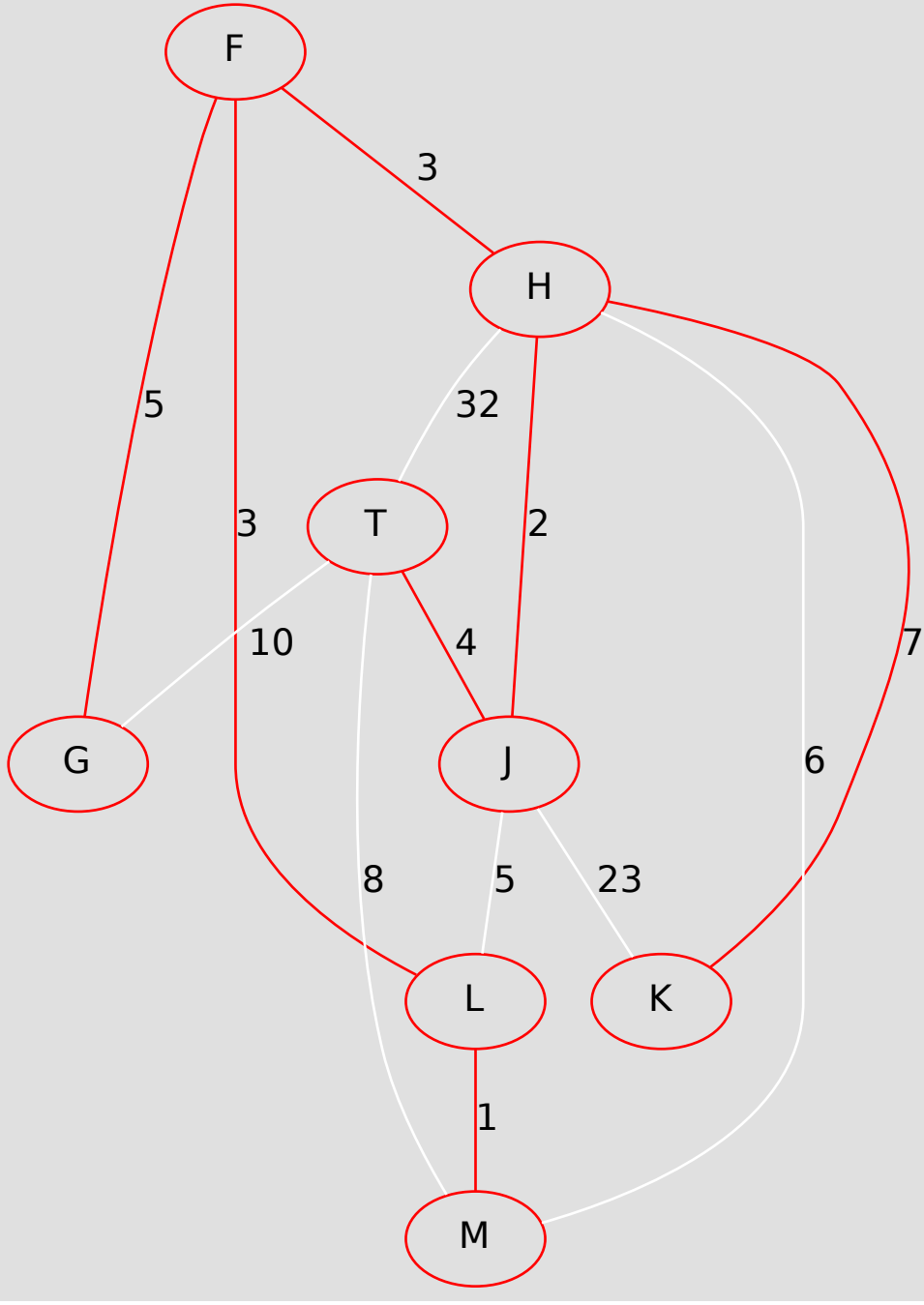

Considering edge (H, K)
Disjoint sets: [F, G, H, J, L, M, T] [K]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 = 18
F
3
H
5
32
3
T
2
10
4
7
G
J
6
8
5
23
L
K
1
M

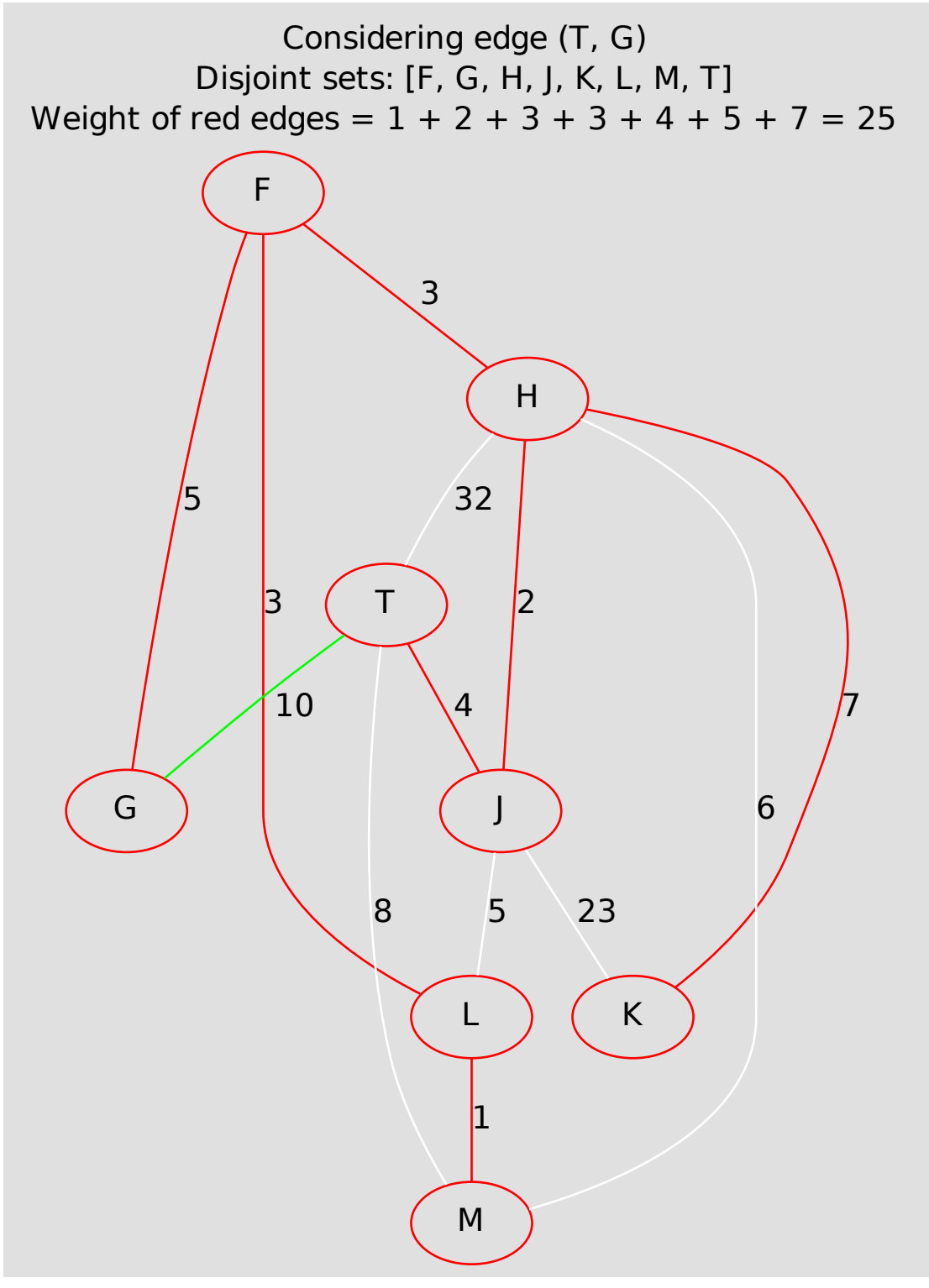
Edge (H, K) spans disconnected components: OK.
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25



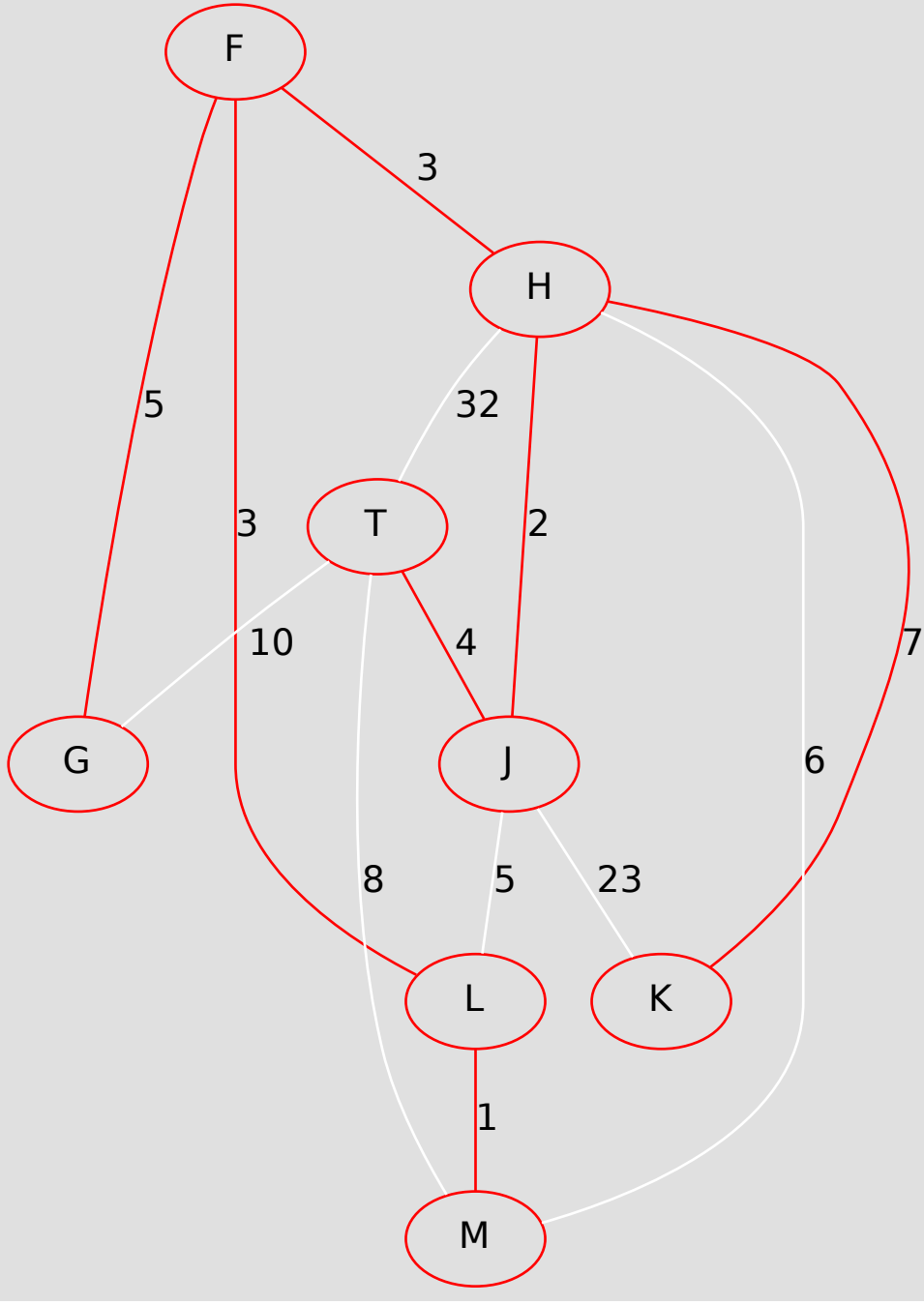

Considering edge (M, T)
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

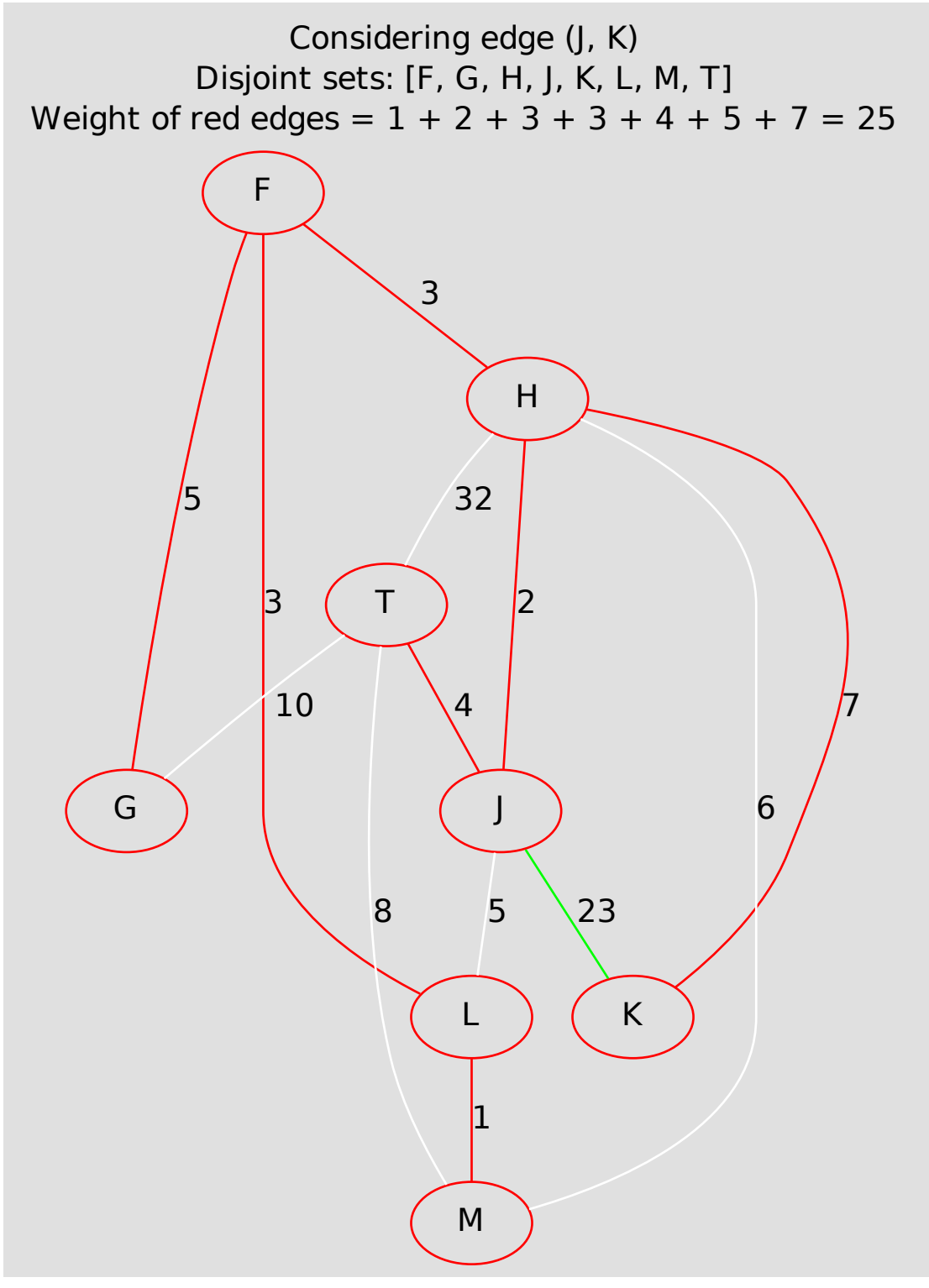
Edge (M, T) would introduce a cycle. Forget it.
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25



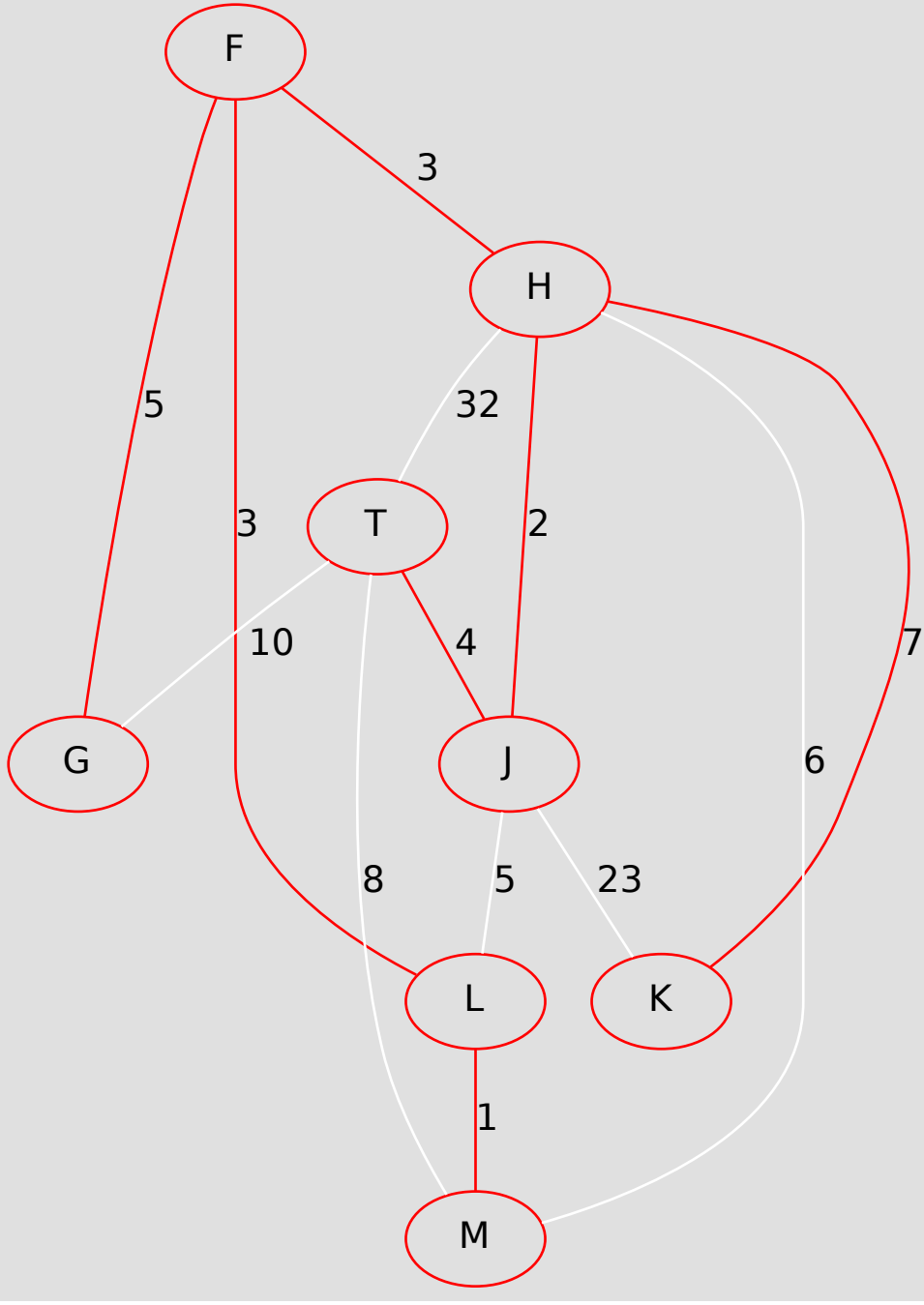

Considering edge (T, G)
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

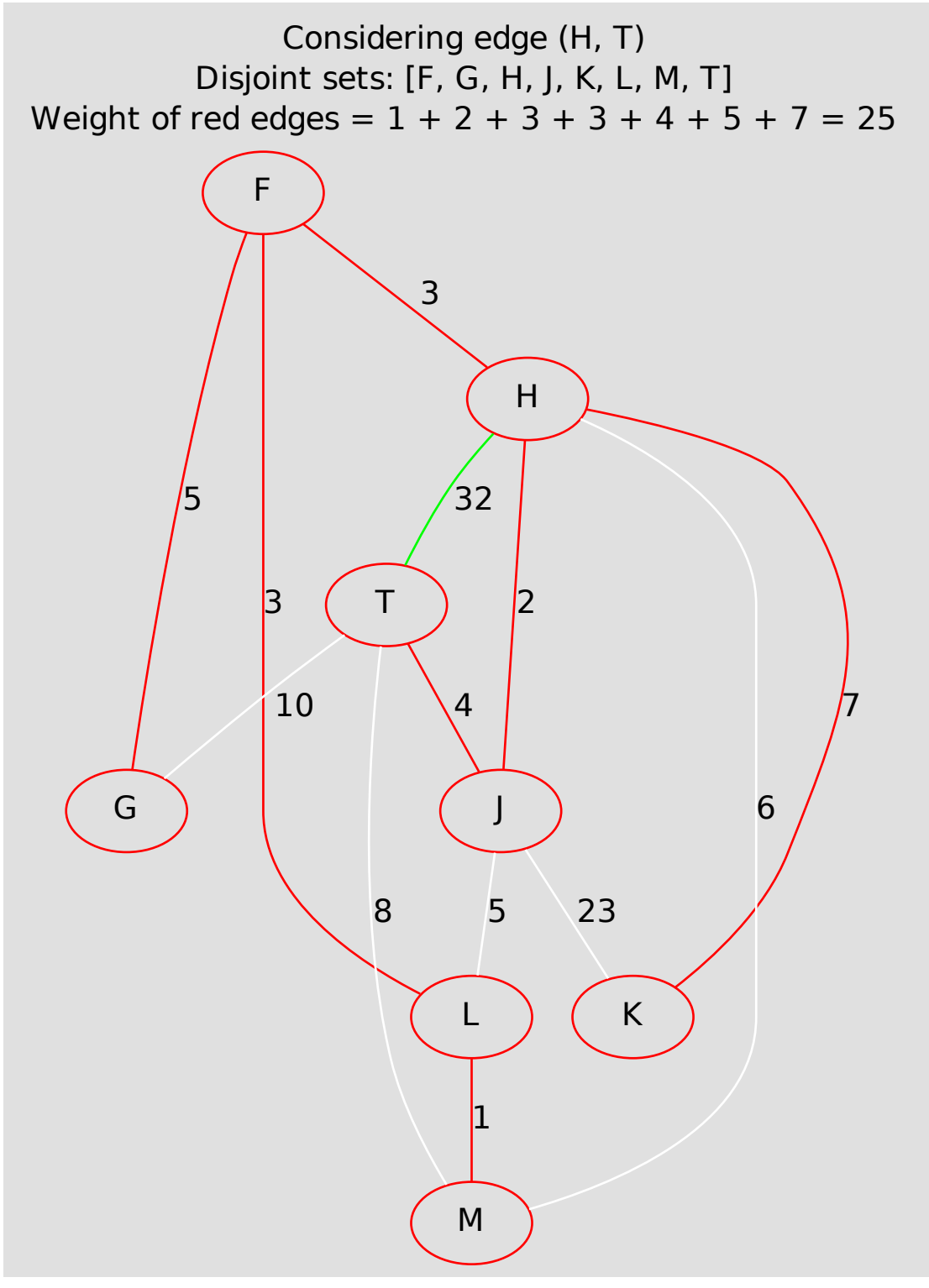
Edge (T, G) would introduce a cycle. Forget it.
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25



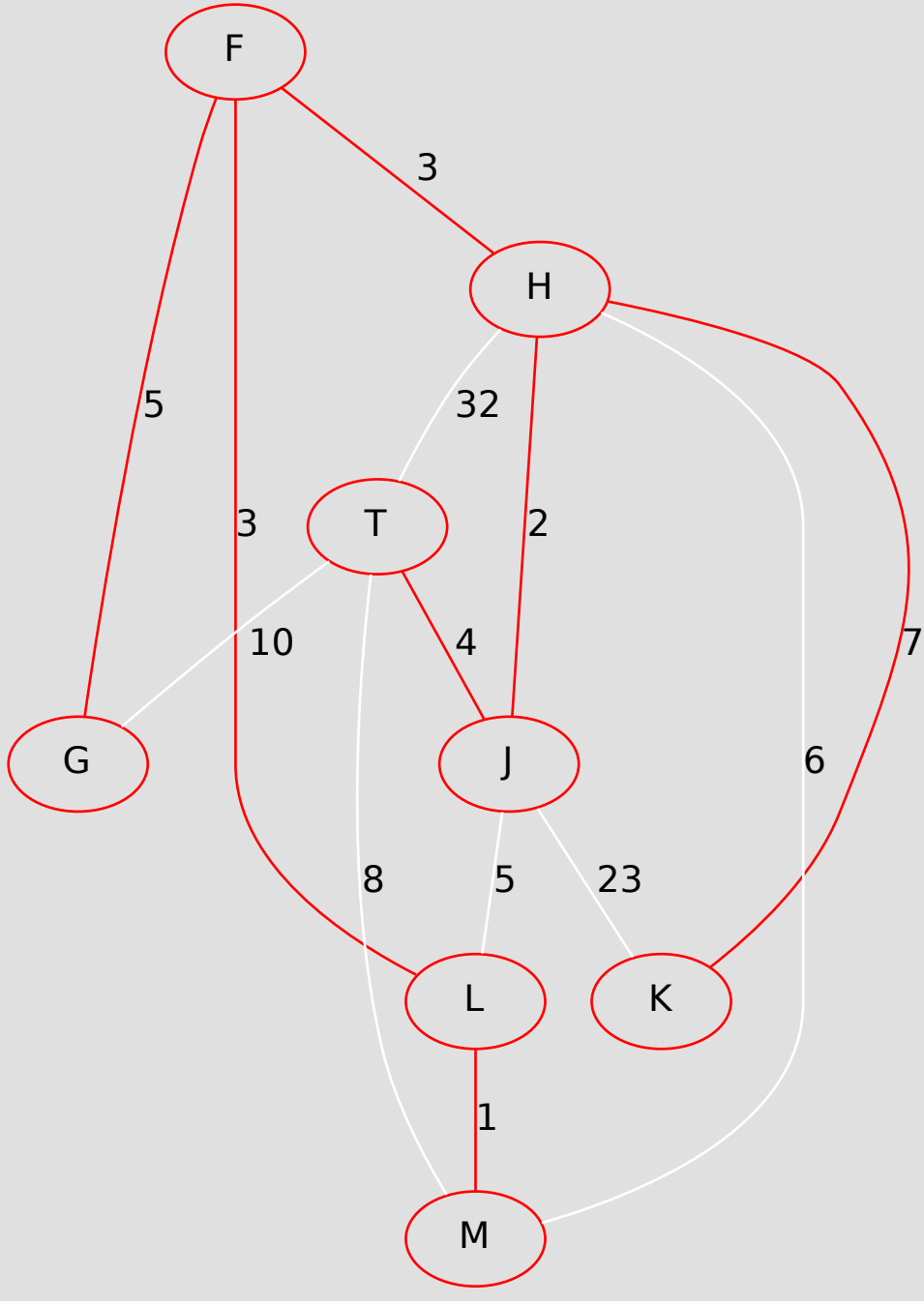

Considering edge (J, K)
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

Edge (J, K) would introduce a cycle. Forget it.
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25




Considering edge (H, T)
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25
F
H
T
G
J
L
K
M
3
5
32
3
2
10
4
7
6
8
5
23
1

Edge (H, T) would introduce a cycle. Forget it.
Disjoint sets: [F, G, H, J, K, L, M, T]
Weight of red edges = 1 + 2 + 3 + 3 + 4 + 5 + 7 = 25



Kruskal minimum spanning tree
Generated by $Id: kruskal.py 90 2010-11-16 01:33:02Z fms27 $

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