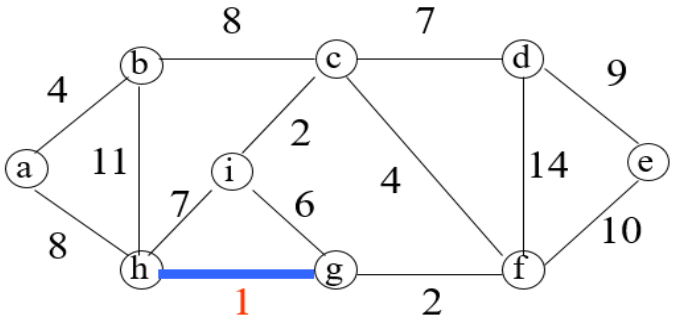
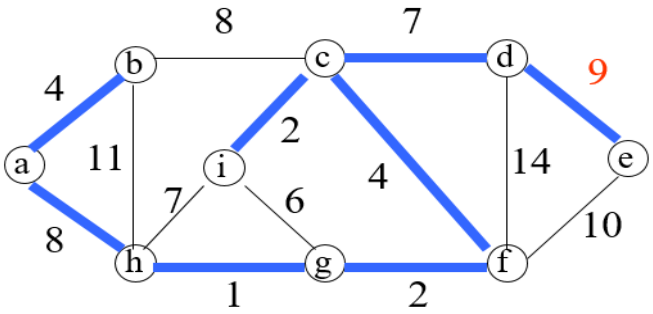
V and descriptions

set	1	2	3	4	5	6	7	8	9
v	a	b	c	d	e	f	g	h	i
g-h			g=7, h=8						
A: g-h,									
set	1	2	3	4	5	6	7	7	9
v	a	b	c	d	e	f	g	h	i
c-i			c= 3, i =9						
A: g-h, c-i									
set	1	2	3	4	5	6	7	7	3
v	a	b	c	d	e	f	g	h	i
f-g			f=6, g= 7						
A: g-h, c-I, f-g									
set	1	2	3	4	5	7	7	7	3
v	a	b	c	d	e	f	g	h	i
a-b			a= 1, b = 2						
A: g-h, c-I, f-g, a-b									
set	2	2	3	4	5	7	7	7	3
v	a	b	c	d	e	f	g	h	i
c-f			c= 3, f = 7						
A: g-h, c-I, f-g, a-b, c-f									
set	2	2	7	4	5	7	7	7	7
v	a	b	c	d	e	f	g	h	i
g-i			g=7, i = 7		g-i SHOULD NOT BE ADDED				
A: g-h, c-I, f-g, a-b, c-f									
set	2	2	7	4	5	7	7	7	7
v	a	b	c	d	e	f	g	h	i
c-d			c= 7, d = 4						
A: g-h, c-I, f-g, a-b, c-f, c-d									
set	2	2	7	7	5	7	7	7	7
v	a	b	c	d	e	f	g	h	i
h-i			h=7, I = 7		h-i SHOULD NOT BE ADDED				
A: g-h, c-I, f-g, a-b, c-f, c-d									
set	2	2	7	7	5	7	7	7	7

Edge and weight

1	g	h	1
2	c	i	2
3	f	g	2
4	a	b	4
5	c	f	4
6	g	i	6
7	c	d	7
8	h	i	7
9	a	h	8
10	b	c	8
11	d	e	9
12	e	f	10
13	b	h	11
14	d	f	14





v	a	b	c	d	e	f	g	h	i
a-h			a=2, h= 7						
A: g-h, c-I, f-g, a-b, c-f, c-d, a-h									
set	7	7	7	7	5	7	7	7	7
v	a	b	c	d	e	f	g	h	i
b-c			b=7, c=7		b-c SHOULD NOT BE ADDED				
A: g-h, c-I, f-g, a-b, c-f, c-d, a-h									
set	7	7	7	7	5	7	7	7	7
v	a	b	c	d	e	f	g	h	i
d-e			d=7, e=5						
A: g-h, c-I, f-g, a-b, c-f, c-d, a-h, d-e					DONE |V| - edges				
set	7	7	7	7	7	7	7	7	7
v	a	b	c	d	e	f	g	h	i

```
MST_KRUSKAL(G,w)
1   A:={}
2   for each vertex v in V[G]
3     do MAKE_SET(v)
4   sort the edges of E by nondecreasing weight w
5   for each edge (u,v) in E, in the order by nondecreasing
    weight
6     do if FIND_SET(u) != FIND_SET(v)
7           then   A:=AU{(u,v)}
8                  UNION(u,v)
9   return A
```