

UPGMA & WPGMA Unit Tests

Hint: Many test values are taken from project Algorithms
for Bioinformatics of Alexander Mattheis or the lectures.

Test 1

Input

	a	b	c	d	e
a	0	6	10	10	10
b		0	10	10	10
c			0	2	6
d				0	6
e					0

Output

```
(( (d:1, c:1):2, e:3):2, (b:3, a:3):2);
```

Test 2 (only for UPGMA)

Input

	a	b	c
a	0	2	3
b		0	3
c			0

Output

```
(( (b:1, a:1):0.5, c:1.5);
```

Test 3 (only for UPGMA)

Input

	a	b	c
a	0	3	6
b		0	6
c			0

Output

`((b:1.5,a:1.5):1.5,c:3);`