



**Input tuples:**

$\text{edge}(G_1, 0, 1)$

$\text{edge}(G_1, 0, 2)$

$\text{edge}(G_1, 1, 3)$

$\text{edge}(G_2, 0, 3)$

$\text{head}([0], 0)$

$\text{ext}(1, [0], [10])$

...

**Derived tuples:**

$\text{path}(G_1, [0])$

$\text{path}(G_1, [10])$

$\text{path}(G_1, [20])$

$\text{path}(G_1, [310])$

$\text{path}(G_2, [30])$