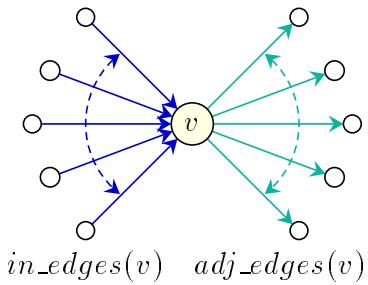
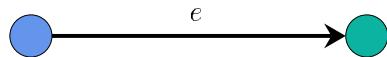


**graph:** directed graphs

**node**



**edge**



**(face)**

*source(e)*

*target(e)*

**Access**

int	G.outdeg(node v);
node	G.target(edge e);
int	G.number_of_nodes();
list<edge>	G.adj_edges(node v);
:	

**Update**

node	G.new_node();
void	G.del_node(node v);
edge	G.new_edge(node v, node w);
void	G.del_edge(edge e);
:	

**Iteration**

forall_nodes( $v, G$ )	{...}
forall_edges( $e, G$ )	{...}
forall_adj_edges( $e, w$ )	{...}
forall_adj_nodes( $v, w$ )	{...}
:	