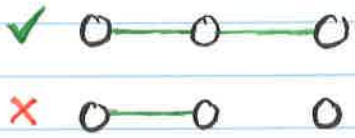
graph theory

DEFINITIONS

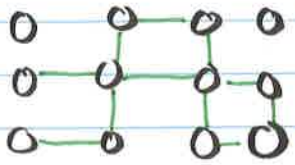
GRAPH: VISUAL REPRESENTATION OF RELATONSHIPS

CONNECTED GRAPH: ALL VERTICES HAVE EDGES



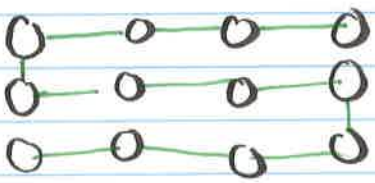
PATH: A GRAPH THAT STARTS ON A VERTEX AND TRAVELS VRTEX TO VERTEX ALONG EDGES

WALK: A LENGTH IS A PATH BUT CAN CONTAIN REPETION

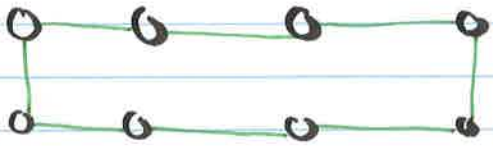


EULERIAN WALK

CIRCUIT: A WALK THAT GOES THROUGH EACH EDGE AND VERTEX ONCE



CYCLE: A CLOSED PATH



DEGREE OF A VERTEX: $d(v)$: AMOUNT OF EDGES A NODE HAS

TREE: A TREE IS CONNECTED AND MUST NOT CONTAIN A CYCLE AS A SUBGRAPH

LEAF: ANY VERTEX IN A TREE WITH DEGREE 1

ROOTED TREE: A TREE WITH A "SPECIAL" VERTEX WHICH IS SINGLED OUT AND CALLED THE ROOT. LABELLED $\emptyset$

MATCHING: A SUBGRAPH OF A GRAPH WHERE EVERY NODE HAS A DEGREE 1

PERFECT MATCHING: EVERY NODE HAS A MATCH.

D-REGULAR GRAPH: A GRAPH IN WHICH EVERY NODE HAS THE SAME DEGREES

BIPARTITE GRAPH: TWO DISJOINT SETS IN WHICH