

Algoritmos y Estructuras de Datos

UT8-PD1

Santiago Blanco

17-06-2025

Ejercicio #1

Diagram illustrating a graph structure and a search process:

Graph nodes and edges:

- Node A (T1) is connected to Node B (T2) and Node C (T3).
- Node B (T2) is connected to Node E (T4).
- Node C (T3) is connected to Node D.
- Node E (T4) is connected to Node G (T5).

Table structure (likely representing a search path or queue state):

G
E
B
A

BFS sequence: A, B, E, G, C, D

Diagram illustrating a search tree structure (Depth-First Search):

- Node A is the root.
- Node B is a child of A.
- Node F is a child of B.
- Node G is a child of F.
- Node C is a child of F.
- Node D is a child of C.

Handwritten text: BUSQUEDA EN PROFUNDIDAD

Ejercicio #2

PRIM

N-U-U	U	T
{B, C, D, E, G}	{A}	{}
{C, D, E, G}	{A, B}	{(A, B)}
{C, D, G}	{A, B, E}	{(A, B), (B, E)}
{C, D}	{A, B, E, G}	{(A, B), (B, E), (E, G)}
{D}	{A, B, E, G, C}	{(A, B), (B, E), (E, G), (A, C)}
{}	{A, B, E, G, C, D}	{(A, B), (B, E), (E, G), (A, C), (C, D)}

⇒⇒

COSTO: $9 + 7 + 4 + 10 + 8 = 38$

Ejercicio #3