

RECUPERACIÓN PARCIAL 1

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PREGUNTA 1

- El conjunto de Nodos es 1, 2, 3, 4, 5, 6, 7
- $\langle 1, 2 \rangle \langle 1, 3 \rangle \langle 1, 4 \rangle \langle 1, 5 \rangle \langle 1, 6 \rangle \langle 2, 3 \rangle \langle 2, 4 \rangle \langle 2, 5 \rangle \langle 2, 6 \rangle \langle 3, 4 \rangle \langle 3, 5 \rangle \langle 3, 6 \rangle \langle 3, 7 \rangle \langle 4, 7 \rangle \langle 5, 6 \rangle \langle 5, 7 \rangle \langle 6, 7 \rangle$

PREGUNTA 2

$$\sum_{i=1}^n i = \frac{n(n+1)}{2}$$

- Caso Base
- $n = 1$
-

$$\sum_{i=1}^1 i = \frac{1(1+1)}{2}$$

-

$$\sum_{i=1}^1 i = 1$$

- Caso Inductivo
-

$$\sum_{i=1}^n i = \frac{n(n+1)}{2}$$

- $n = k$
-

$$\sum_{i=1}^k i = \frac{k(k+1)}{2}$$

- $n = k + 1$
-

$$\sum_{i=1}^{k+1} i = \frac{(k+1)((k+1)+1)}{2}$$

-

$$\sum_{i=1}^k i + (k+1) = \frac{(k+1)(k+2)}{2}$$

-

$$\frac{k(k+1) + 2(k+1)}{2} = \frac{(k+1)(k+2)}{2}$$

-

$$\frac{k^2 + k + 2k + 2}{2} = \frac{k^2 + k + 2k + 2}{2}$$

- Queda demostrado al ser igual.

PREGUNTA 3

- Para todo numero $a + b$ si $a = 0$ entonces $a + b = b$. Y si $a = s(i)$ entonces $a + b = s(i + b)$
- Entoces para la Sumatoria

PREGUNTA 4

- $a = s(0)$
- $a = s(s(0))$
- $a + b = b + a$
- $s(0) + s(s(0)) = s(s(0)) + s(0)$
- $s(s(0) + s(0)) = s(s(s(0) + 0)$
- $s(s(s(0) + 0) = s(s(s(0) + 0)$
- $s(s(s(0)) = s(s(s(0))$
- Esto quiere decir que ambos son iguales.

PREGUNTA 5

- $((n + n) \geq n) = s(0)$
- $s(0) + s(0) \geq s(0)$
- $s(s(0)) \geq s(0)$
- $s(s(0)) - s(0) \geq 0$
- $s(0) \geq 0$