UNIVERSIDAD DE LAS FUERZAS ARMADAS "ESPE"

ESTRUCTURAS DE DATOS

OCT 21 – FEB 22

INTEGRANTES: Alemán Josué, Espinosa Luis, Dasimba Jorge.

NRC: 3161.

CARRERA: Software.

EXPRESIONES Y NOTACIONES

1) IN-ORDEN:

$$(sen(45)\wedge 4) \times (cos(30)\wedge 2) - 3 \div 6$$

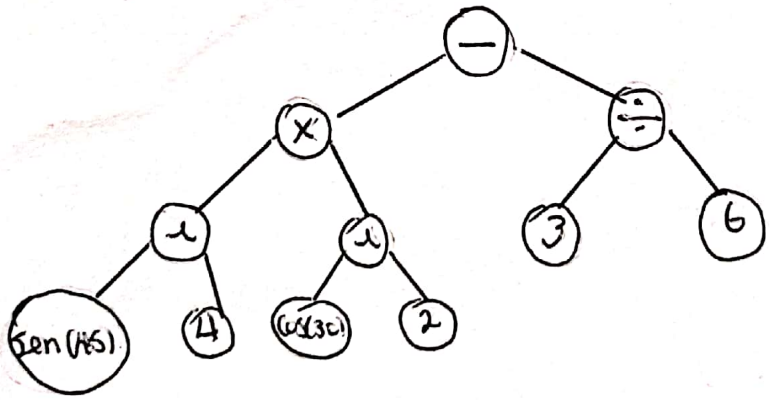
PRE-ORDEN:

$$-\times\wedge sen(45)(4)\wedge cos(30)(20) \div (3)(6)$$

POST-ORDEN:

$$sen(45)(4)\wedge cos(30)(2)\wedge \times (3)(6) \div -$$

ÁRBOL



2) IN-ORDEN:

$$\left(\frac{\tan(x) - \cot an(x)}{sen(x)}\right) \times (\ln(x)\wedge 2) + (\cos(x)\wedge 2)$$

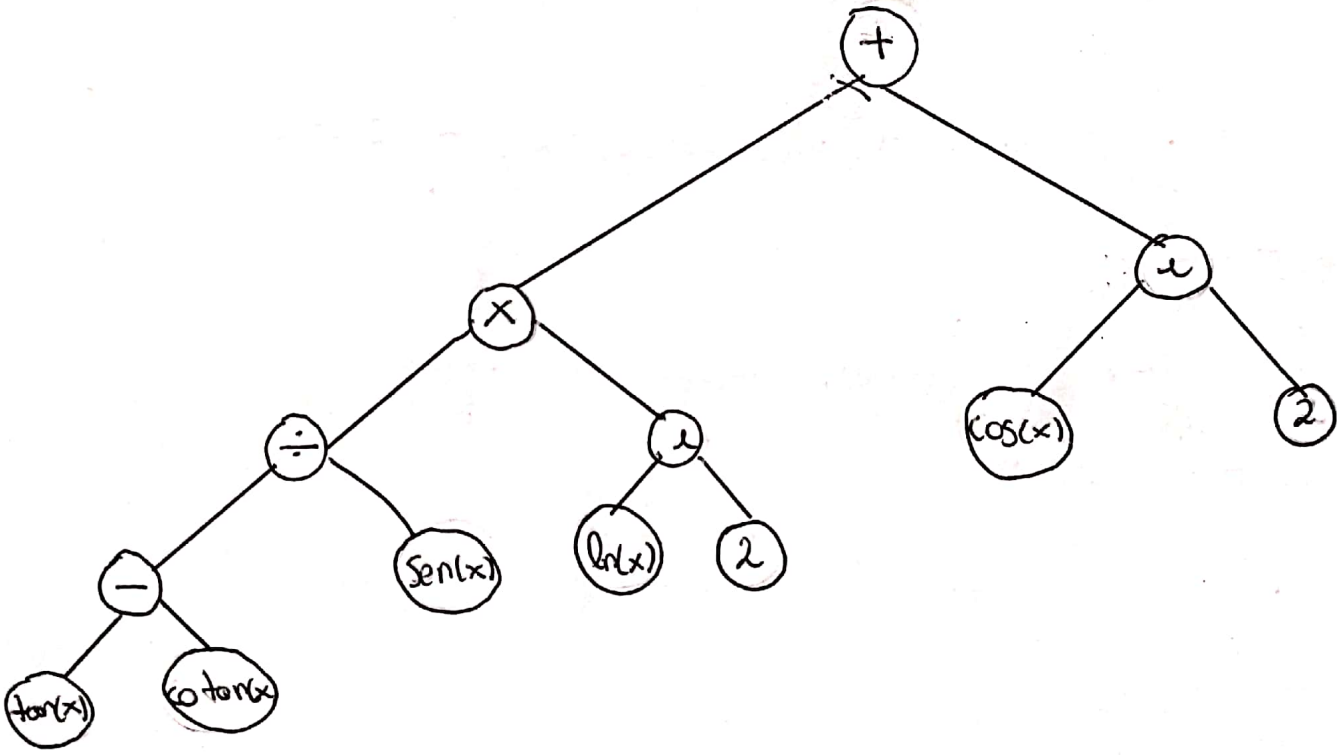
PRE - ORDEN:

$$+ \times \div - [\tan(x)][\operatorname{cotan}(x)]\,[\operatorname{sen}(x)]\,\wedge\,[\ln(x)]\,(2)\,\wedge\,[\cos(x)]\,(2)$$

POST - ORDEN:

$$\tan(x)\ \operatorname{cotan}(x) - \operatorname{sen}(x) \div \ln(x)(2)\,\wedge\,\cos(x)\,(2)\,\wedge\,+$$

ÁRBOL



3) IN - ORDEN:

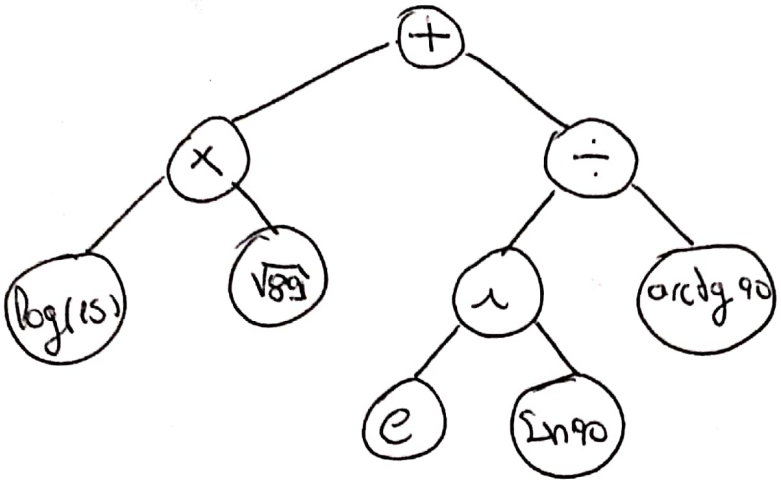
$$\log(15) \times \sqrt{89} + \frac{e^{\wedge} \operatorname{sen}(90)}{\operatorname{arctg}(90)}$$

PRE-ORDEN:

$$+ \times \log(15)\,(\sqrt{89}) \div \wedge\,(e)\,[\operatorname{sen}(90)]\,[\operatorname{arctg}(90)]$$

POST-ORDEN:

$$[\log(15)]\,(\sqrt{89}) \times e\,[\operatorname{sen}(90)]\,\wedge\,[\operatorname{arctg}(90)] \div +$$



4) In - Orden:

((3x^6 + cos(x) * sen(x)) ÷ (x * x^2) - (tan(x) * ln(x) + 5)

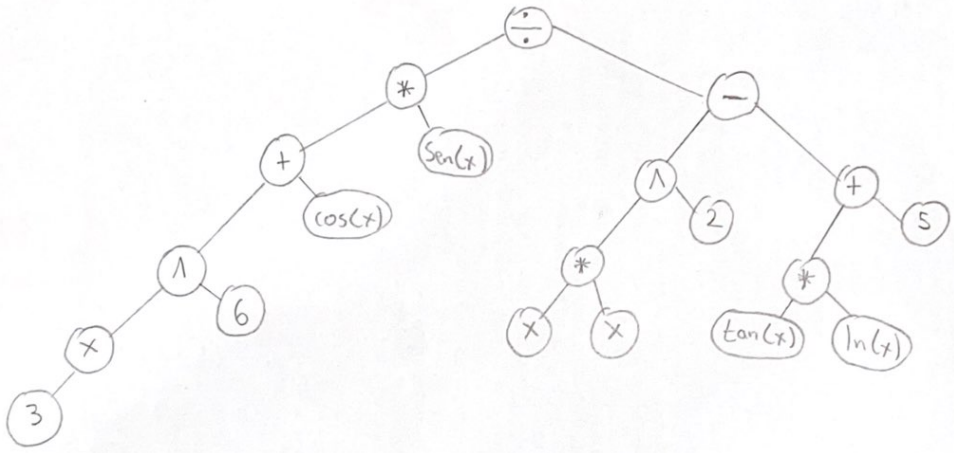
Pre - Orden:

- ÷ + * [cos(x)][sen(x)] ^ (3x)(6) + * [tan(x)][ln(x)](5)

Post - Orden:

(3x)(6)^[cos(x)][sen(x)] * + (x)(x)(2)^ * ÷ [tan(x)][ln(x)] * 5 + -

Árbol:



5) In - Orden:

((z+1) * (z-1)) ÷ ((a * 2) - (a+1))

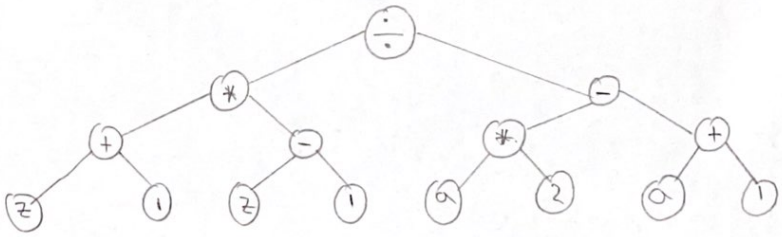
Pre - Orden

÷ * + (z)(1) - (z)(1) - * (a)(2) + (a)(1))

Post - Orden

(z)(1) + (z)(1) - * (a)(2) * (a)(1) + - ÷

Árbol:



6) In - Orden

$\{[2 * tg(45)] \div [40 \wedge \log(3)]\} + (\sqrt{69}) \wedge \pi$

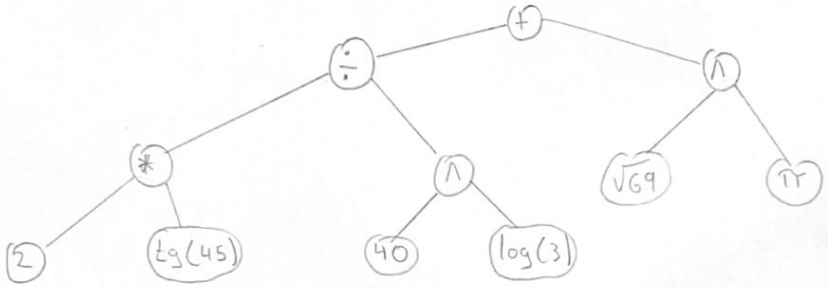
Pre - Orden

$+ \div * (2)(tg(45)) \wedge (40)[\log(3)] \wedge (\sqrt{69})(\pi)$

Post - Orden.

$(2)[tg(45)] * (40)[\log(3)] \wedge \div (\sqrt{69})(\pi) \wedge +$

Árbol:



7)

In - Orden

$$[(16\hat{}2 \div 4\hat{}4) * \ln(x)] - (\tan(x)\hat{}2)$$

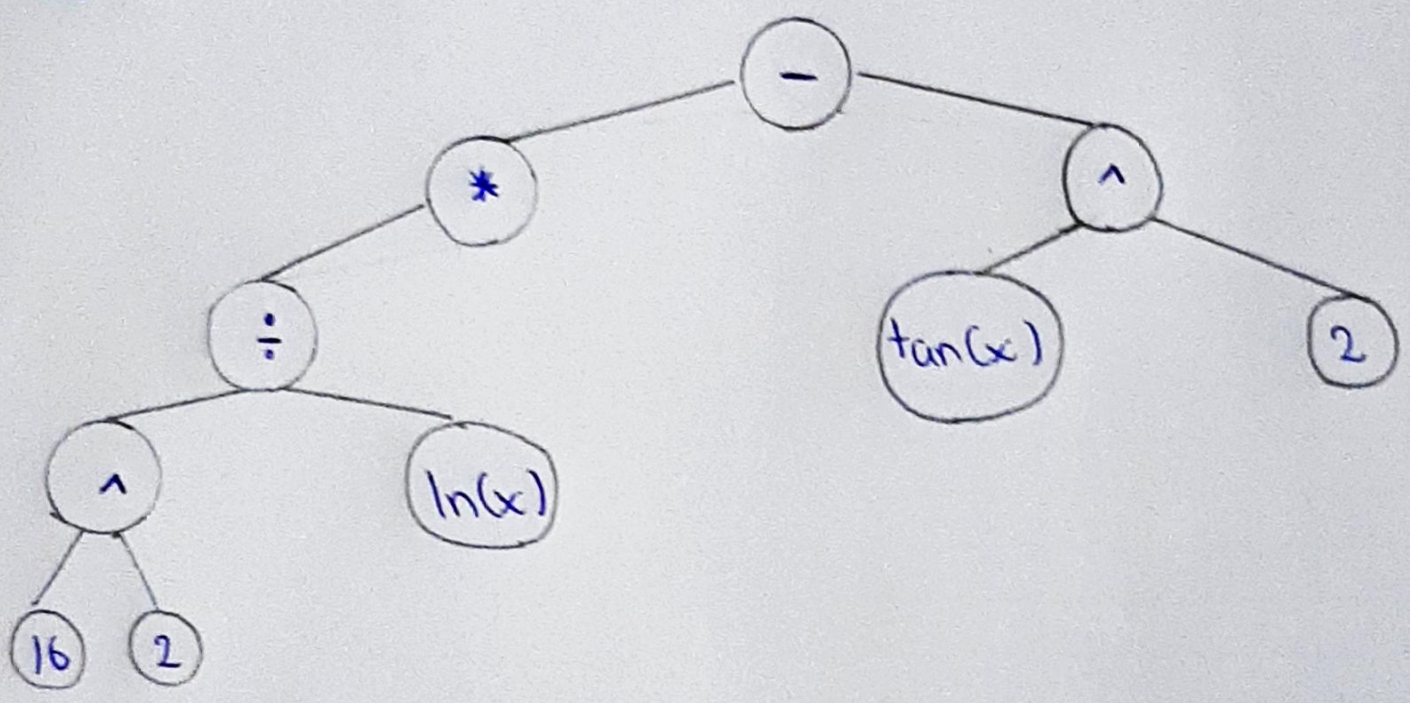
Pre - Orden

$$-*\div\hat{}(16)(2)\hat{}(4)(4)[\ln(x)]\hat{}[\tan(x)](2)$$

Post - Orden

$$(16)(2)\hat{}(4)(4)\hat{}\div[\ln(x)]*[\tan(x)](2)\hat{}-$$

Árbol



8)

In - Orden:

[e ^ ln(45)] / [arcsen(56)] - [(4 * 36 ^ 8) * sen(95)]

Pre - Orden:

- ÷ ^ (e) [ln(45)] [arcsen(56)] * * 4 ^ (36) (8) [sen(95)]

Post - Orden

(e) [ln(45)] ^ [arcsen(56)] ÷ (4) (36) (8) ^ * [sen(95)] * -

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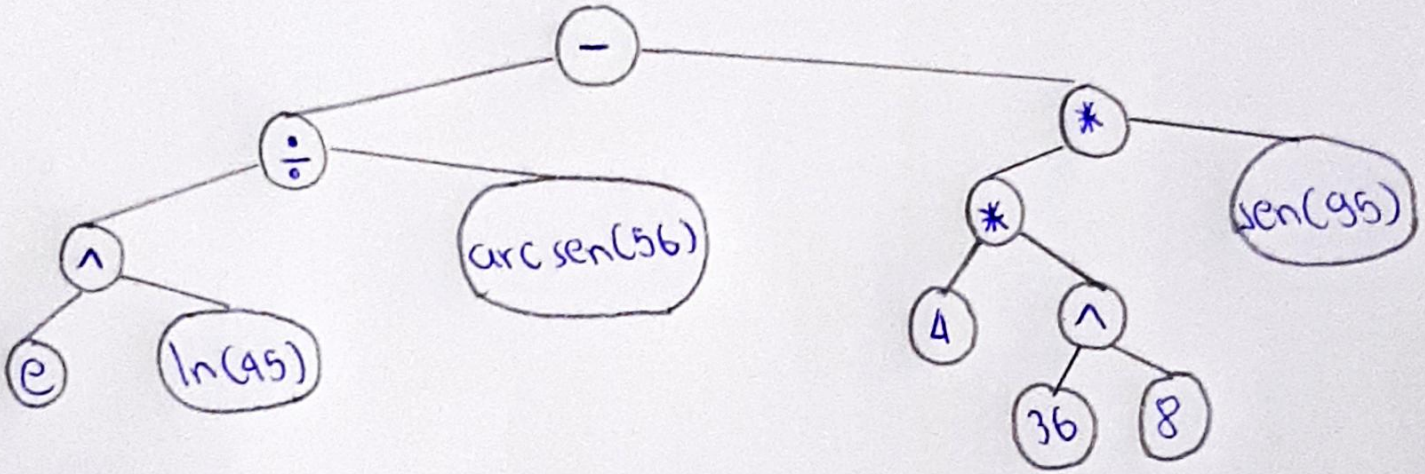

9) In - Orden

[(ln(e)^x) * (sen(x))* cos(x)] + (2^5 ÷ 2^4)

Pre - Orden

+ * ^[ln(e)](x) * [sen(x)][cos(x)] ÷ ^(2)(5) ^(2)(4)

Post - Orden

[ln(e)](x)^ [sen(x)][cos(x)] * * (2)(5)^(2)(4)^ ÷ +

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