Dibujo en blanco y negro

Descripción generada automáticamente con confianza mediaForma

Descripción generada automáticamente con confianza baja**Universidad Nacional Autónoma de México**

**Facultad de Estudios Superiores Aragón**

Ingeniería en Computación

**COMPILADORES**

**Grupo:**2608

**Profesor:**Pérez Medel Marcelo

**TAREA 3**

Expresiones Infijas

**Alumna:** Cruz Cervantes Guadalupe Sugeily

**Texto

Descripción generada automáticamente**

**Tabla

Descripción generada automáticamente**

**1.- 5-(6\*12+3)-11**

-

- 11

5 +

\* 3

6 12

**Prefija**

- - 5 + \* 6 12 3 11

**Postfija**

5 6 12 \* 3 + - 11 -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
| 12 |
| 6 |
| 5 |

|  |
| --- |
|  |
|  |
|  |
| 3 |
| 72 |
| 5 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 75 |
| 5 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 11 |
| -70 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -81 |

-70-11

6\*12

72+3

5-75

**2.- 1\*11-13\*(11\*3\*5)\*(14/14)**

**-**

**\* \***

**1 11 \* /**

**13 \* 14 14**

**\* 5**

**11 3**

**Prefija**

- \* 1 11 \* \* 13 \* \* 11 3 5 / 14 14

**Postfija**

1 11 \* 13 11 3 \* 5 \* \* 14 14 / \* -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 11 |
| 1 |

|  |
| --- |
|  |
|  |
| 3 |
| 11 |
| 13 |
| 11 |

|  |
| --- |
|  |
|  |
| 5 |
| 33 |
| 13 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
| 165 |
| 13 |
| 11 |

|  |
| --- |
|  |
|  |
| 14 |
| 14 |
| 2145 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
| 1 |
| 2145 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 2145 |
| 11 |

2145\*1

14/14

13\*165

1\*11

11\*3

33\*5

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -2134 |

11-2145

**3.- (11+(3\*7)\*9)-11**

**-**

**+ 11**

**11 \***

**\* 9**

**3 7**

**Prefija**

**- + 11 \* \* 3 7 9 11**

**Postfija**

**11 3 7 \* 9 \* + 11 -**

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
| 7 |
| 3 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
| 9 |
| 21 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 189 |
| 11 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 11 |
| 200 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| 189 |

200-11

11+189

3\*7

21\*9

**4.- (5/4+5)\*(5/11)\*(6\*14)/1**

**/**

**\* 1**

**\* \***

**+ / 6 14**

**/ 5 5 11**

**5 4**

**Prefija**

/ \* \* + / 5 4 5 / 5 11 \* 6 14 1

**Postfija**

5 4 / 5 + 5 11 / \* 6 14 \* \* 1 /

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 4 |
| 5 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 5 |
| 5/4 |

|  |
| --- |
|  |
|  |
|  |
| 11 |
| 5 |
| 25/4 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 5/11 |
| 25/4 |

|  |
| --- |
|  |
|  |
|  |
| 14 |
| 6 |
| 125/44 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 84 |
| 125/44 |

125/44\*84

6\*14

25/4\*5/11

5/4+5

5/4

5/11

|  |
| --- |
|  |
|  |
|  |
|  |
| 1 |
| 2625/11 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| 2625/11 |

2625/11 / 1

**5.- (1/4\*13\*11)/8-14**

**-**

**/ 14**

**\* 8**

**\* 11**

**/ 13**

**1 4**

**Prefija**

- / \* \* / 1 4 13 11 8 14

**Postfija**

1 4 / 13 \* 11 \* 8 / 14 -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 4 |
| 1 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 13 |
| ¼ |

|  |
| --- |
|  |
|  |
|  |
|  |
| 11 |
| 13/4 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 8 |
| 143/4 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 14 |
| 143/32 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -305/32 |

143/32-14

143/4 / 8

13/4\*11

1/4

¼\*13

**6.- 9-1-(3+(4+13)\*15)**

**-**

**- +**

**9 1 3 \***

**+ 15**

**4 13**

**Prefija**

- - 9 1 + 3 \* + 4 13 15

**Postfija**

9 1 - 3 4 13 + 15 \* + -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 1 |
| 9 |

|  |
| --- |
|  |
|  |
| 13 |
| 4 |
| 3 |
| 8 |

|  |
| --- |
|  |
|  |
| 15 |
| 17 |
| 3 |
| 8 |

|  |
| --- |
|  |
|  |
|  |
| 255 |
| 3 |
| 8 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 258 |
| 8 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -250 |

8-258

3+255

17\*15

9-1

4+13

**7.- (9\*7)+13-12-11-8/13**

**-**

**- /**

**- 11 8 13**

**+ 12**

**\* 13**

**9 7**

**Prefija**

- - - + \* 9 7 13 12 11 / 8 13

**Postfija**

9 7 \* 13 + 12 - 11 - 8 13 / -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 7 |
| 9 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 13 |
| 63 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 12 |
| 76 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 11 |
| 64 |

|  |
| --- |
|  |
|  |
|  |
| 13 |
| 8 |
| 53 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 8/13 |
| 53 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| 681/13 |

53-8/13

8/13

64-11

76-12

9\*7

63+13

**8.- 1-7/(2+15)**

**-**

**1 /**

**7 +**

**2 15**

**Prefija**

- 1 / 7 + 2 15

**Postfija**

1 7 2 15 + / -

**Evaluar**

|  |
| --- |
|  |
|  |
| 15 |
| 2 |
| 7 |
| 1 |

|  |
| --- |
|  |
|  |
|  |
| 17 |
| 7 |
| 1 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 7/17 |
| 1 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| 10/17 |

1-7/17

2+15

7/17

**9.- (15/14)-9\*6-12**

**-**

**- 12**

**/ \***

**15 14 9 6**

**Prefija**

- - / 15 14 \* 9 6 12

**Postfija**

15 14 / 9 6 \* - 12 -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 14 |
| 15 |

|  |
| --- |
|  |
|  |
|  |
| 6 |
| 9 |
| 15/14 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 54 |
| 15/14 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -909/14 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 12 |
| -741/14 |

-741/14-12

15/14-54

15/14

9\*6

**10.- (7-10)\*6\*4\*7-6**

**-**

**\* 6**

**\* 7**

**\* 4**

**- 6**

**7 10**

**Prefija**

- \* \* \* - 7 10 6 4 7 6

**Postfija**

7 10 - 6 \* 4 \* 7 \* 6 -

**Evaluar**

|  |
| --- |
|  |
|  |
|  |
|  |
| 10 |
| 7 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 6 |
| -3 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 4 |
| -18 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 7 |
| -72 |

|  |
| --- |
|  |
|  |
|  |
|  |
| 6 |
| -504 |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| -510 |

-504-6

-72\*7

-18\*4

7-10

-3\*6

**11.- a\*(b+(c-d-e)/f)**

**\***

**a +**

**b /**

**- f**

**- e**

**C d**

**Prefija**

\* a + b / - - c d e f

**Postfija**

a b c d - e - f / + \*

**Evaluar**

**t1=c-d t2=t1-e t3=t2/f t4=b+t3 t5=** a\*t4

|  |
| --- |
|  |
|  |
| d |
| c |
| b |
| a |

|  |
| --- |
|  |
|  |
| e |
| t1 |
| b |
| a |

|  |
| --- |
|  |
|  |
| f |
| t2 |
| b |
| a |

|  |
| --- |
|  |
|  |
|  |
| t3 |
| b |
| a |

|  |
| --- |
|  |
|  |
|  |
|  |
| t4 |
| a |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| t5 |

a\*t4

b+t3

c-d

t1-e

t2/f

**12.- a/b-c+d+(e\*f/g+h)**

**+**

**+ +**

**- d / h**

**/ c \* g**

**a b e f**

**Prefija**

+ + - / a b c d + / \* e f g h

**Postfija**

a b / c - d + e f \* g / h + +

**Evaluar**

t1=a/b t2=t1-c t3=t2+d t4=e\*f t5=t4/g t6=t5+h t7=t3+t6

|  |
| --- |
|  |
|  |
| b |
| a |

|  |
| --- |
|  |
|  |
| c |
| t1 |

|  |
| --- |
|  |
|  |
| d |
| t2 |

|  |
| --- |
|  |
| f |
| e |
| t3 |

|  |
| --- |
|  |
| g |
| t4 |
| t3 |

|  |
| --- |
|  |
| h |
| t5 |
| t3 |

|  |
| --- |
|  |
|  |
| t6 |
| t3 |

t5+h

t4/g

e\*f

t2+d

t1-c

a/b

|  |
| --- |
|  |
|  |
|  |
| t7 |

t3+t6

**13.- (a\*b)/(c+d\*e)\*f**

**\***

**/ f**

**\* + a b c \***

**d e**

**Prefija**

\* / \* a b + c \* d e f

**Postfija**

a b \* c d e \* + / f \*

**Evaluar**

t1=a\*b t2=d\*e t3=c+t2 t4=t1/t3 t5=t4\*f

|  |
| --- |
| e |
| d |
| c |
| t1 |

|  |
| --- |
|  |
| t2 |
| c |
| t1 |

|  |
| --- |
|  |
|  |
| t3 |
| t1 |

|  |
| --- |
|  |
|  |
| f |
| t4 |

|  |
| --- |
|  |
|  |
|  |
| t5 |

|  |
| --- |
|  |
|  |
| b |
| a |

t4\*f

t1/t3

c+t2

d\*e

a\*b

**14.- a+(b\*c-d-e)**

**+**

**a -**

**- e**

**\* d**

**b c**

**Prefija**

+ a - - \* b c d e

**Postfija**

a b c \* d - e - +

**Evaluar**

t1=b\*c t2=t1-d t3=t2-e t4=a+t3

|  |
| --- |
|  |
| d |
| t1 |
| a |

|  |
| --- |
|  |
| e |
| t2 |
| a |

|  |
| --- |
|  |
|  |
| t3 |
| a |

|  |
| --- |
|  |
|  |
|  |
| t4 |

|  |
| --- |
|  |
| c |
| b |
| a |

a+t3

t2-e

t1-d

b\*c

**15.- (a\*b/c)+(d-e)/f-g**

**-**

**+ g**

**/ /**

**\* c - f**

**a b d e**

**Prefija**

- + / \* a b c / - d e f g

**Postfija**

a b \* c / d e - f / + g -

**Evaluar**

t1=a\*b t2=t1/c t3=d-e t4=t3/f t5=t2+t4 t6=t5-g

|  |
| --- |
|  |
|  |
| c |
| t1 |

|  |
| --- |
|  |
| e |
| d |
| t2 |

|  |
| --- |
|  |
| f |
| t3 |
| t2 |

|  |
| --- |
|  |
|  |
| t4 |
| t2 |

|  |
| --- |
|  |
|  |
| g |
| t5 |

|  |
| --- |
|  |
|  |
|  |
| t6 |

|  |
| --- |
|  |
|  |
| b |
| a |

t5-g

t3/f

t2+t4

d-e

t1/c

a\*b

**16.- a+b-(c/d)**

**-**

**+ /**

**a b c d**

**Prefija**

- + a b / c d

**Postfija**

a b + c d / -

**Evaluar**

t1=a+b t2=c/d t3=t1-t2

|  |
| --- |
| d |
| c |
| t1 |

|  |
| --- |
|  |
| t2 |
| t1 |

|  |
| --- |
|  |
|  |
| t3 |

|  |
| --- |
|  |
| b |
| a |

t1-t2

c/d

a+b

**17.- (a/b)+(c-d+e)-f**

**-**

**+ f**

**/ +**

**a b - e**

**c d**

**Prefija**

- + / a b + - c d e f

**Postfija**

a b / c d - e + + f -

**Evaluar**

t1=a/b t2=c-d t3=t2+e t4=t1+t3 t5=t4-f

|  |
| --- |
|  |
| d |
| c |
| t1 |

|  |
| --- |
|  |
| e |
| t2 |
| t1 |

|  |
| --- |
|  |
|  |
| t3 |
| t1 |

|  |
| --- |
|  |
|  |
| f |
| t4 |

|  |
| --- |
|  |
|  |
|  |
| t5 |

|  |
| --- |
|  |
|  |
| b |
| a |

t4-f

t1+t3

t2+e

c-d

a/b

**18.- a/b/c\*d/e-f\*(g+h)**

**-**

**/ \***

**\* e f +**

**/ d g h**

**/ c**

**a b**

**Prefija**

- / \* / / a b c d e \* f + g h

**Postfija**

a b / c / d \* e / f g h + \* -

**Evaluar**

t1=a/b t2=t1/c t3=t2\*d t4=t3/e t5=g+h t6=f\*t5 t7=t4-t6

|  |
| --- |
|  |
|  |
| c |
| t1 |

|  |
| --- |
|  |
|  |
| d |
| t2 |

|  |
| --- |
|  |
|  |
| e |
| t3 |

|  |
| --- |
| h |
| g |
| f |
| t4 |

|  |
| --- |
|  |
| t5 |
| f |
| t4 |

|  |
| --- |
|  |
|  |
| t6 |
| t4 |

|  |
| --- |
|  |
|  |
| b |
| a |

f\*t5

g+h

t3/e

t2\*d

t1/c

a/b

|  |
| --- |
|  |
|  |
|  |
| t7 |

t4-t6

**19.- (a-b)\*c-d/e**

**-**

**\* /**

**- c d e**

**a b**

**Prefija**

- \* - a b c / d e

**Postfija**

a b - c \* d e / -

**Evaluar**

t1=a-b t2=t1\*c t3=d/e t4=t2-t3

|  |
| --- |
|  |
|  |
| c |
| t1 |

|  |
| --- |
|  |
| e |
| d |
| t2 |

|  |
| --- |
|  |
|  |
| t3 |
| t2 |

|  |
| --- |
|  |
|  |
|  |
| t4 |

|  |
| --- |
|  |
|  |
| b |
| a |

t2-t3

d/e

t1\*c

a-b

**20.- (a+b)-c/d**

**-**

**+ /**

**a b c d**

**Prefija**

- + a b / c d

**Postfija**

a b + c d / -

**Evaluar**

t1=a+b t2=c/d t3=t1-t2

|  |
| --- |
|  |
| d |
| c |
| t1 |

|  |
| --- |
|  |
|  |
| t2 |
| t1 |

|  |
| --- |
|  |
|  |
|  |
| t3 |

|  |
| --- |
|  |
|  |
| b |
| a |

t1-t2

c/d

a+b