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LUANA ROZA DE OLIVEIRA (202010258)  
CURSO: CIÊNCIA DA COMPUTAÇÃO  
DISCIPLINA: COMPILADORES

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#### REGRAS DE PRODUÇÃO E PRIMITIVAS:

A: FO num {turtle.draw\_segment ( 0, \$num.value)}  
B: BK num {turtle.draw\_segment ( 180, \$num.value)}  
C: LT angle {turtle.draw\_segment ( \$angle.value, \$1)}  
D: RT angle {turtle.draw\_segment ( \$angle.value, \$1)}  
E: PD {turtle.set\_draw (T)}  
F: PU {turtle.set\_draw (F)}  
G: WC {turtle.clear()}  
H: CS {turtle.clear()}  
I: SETXY num num {turtle.set\_position (\$num.value, \$num.value)}  
J: HOME {turtle.home()}  
K: XCOR {turtle.xcor}  
L: YCOR {turtle.ycor}  
M: HEADING {\$angle.value, \$0}  
N: IF {turtle.set\_IF(T)}  
O: IF\_ELSE {turtle.set\_IF(T) or turtle.set\_ELSE(F)}  
P: WHILE: {turtle.end()}  
Q: PRINT {turtle.date()}  
R: TYPEIN {turtle.read()}  
S: TO {turtle.new\_primitive}  
T: RANDOM {turtle.num\_integer(\$0 a \$9)}

TO SQUARE :num

PD {turtle.set\_draw (T)}  
FO :num {turtle.draw\_segment ( 0, :\$num.value)}  
RT 90 {turtle.draw\_segment ( 90, \$1)}  
FO :num {turtle.draw\_segment ( 0, :\$num.value)}  
RT 90 {turtle.draw\_segment ( 90, \$1)}  
FO :num {turtle.draw\_segment ( 0, :\$num.value)}  
RT 90 {turtle.draw\_segment ( 90, \$1)}  
FO :num {turtle.draw\_segment ( 0, :\$num.value)}  
RT 90 {turtle.draw\_segment ( 90, \$1)}  
PU {turtle.set\_draw (F)}

END

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TO HEX :num
  PD {turtle.set_draw (T)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  PU {turtle.set_draw (F)}
END

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TO TRIANGLE :num
  PD {turtle.set_draw (T)}
    RT 60 {turtle.draw_segment ( 60, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 120 {turtle.draw_segment ( 120, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
    RT 120 {turtle.draw_segment ( 120, $1)}
  FO :num {turtle.draw_segment ( 0, :$num.value)}
  PU {turtle.set_draw (F)}
END

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program A:
  SETXY 20 0 {turtle.set_position (20, 0)}
    PD {turtle.set_draw (T)}
    BK 50 {turtle.draw_segment (180, 50)}
    PU {turtle.set_draw (F)}
    FO 100 {turtle.draw_segment (0, 100)}
    PD {turtle.set_draw (T)}
    FO 50 {turtle.draw_segment (0, 50)}
    PU {turtle.set_draw (F)}
  SETXY 40 0 {turtle.set_position (40, 0)}
    PD {turtle.set_draw (T)}
    BK 50 {turtle.draw_segment (180, 50)}
    PU {turtle.set_draw (F)}

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        FO 100 {turtle.draw_segment (0, 100)}
        PD {turtle.set_draw (T)}
        FO 50 {turtle.draw_segment (0, 50)}
        PU {turtle.set_draw (F)}
SETXY 30 25 {turtle.set_position (30, 25)}
        PD {turtle.set_draw (T)}
        SQUARE 50
        LT 60
        SQUARE 50
        LT 60
        SQUARE 50
        LT 60          // repeat 6 [
        SQUARE 50      // SQUARE 50
        LT 60          // LT 60
        SQUARE 50      // ]
        LT 60
        SQUARE 50
        LT 60
        PU {turtle.set_draw (F)}
END
CS {turtle.clear()}

```

program B:

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        PD {turtle.set_draw (T)}
        HEX 60
        PU {turtle.set_draw (F)}

END
WC {turtle.clear ()}

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program C:

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        PD {turtle.set_draw (T)}
        SQUARE 200
        SETXY 100 100 {turtle.set_position (100, 100)}
        TRIANGLE 150
        RT 60
        TRIANGLE 150          // repeat 4 [
        RT 60                  // TRIANGLE 150
        TRIANGLE 150          // RT 60
        RT 60                  // ]
        TRIANGLE 150
        RT 60
        PU {turtle.set_draw (F)}

```

END

CS {turtle.clear ()}

program D:

HEADING {\$angle.value, \$0}

SETXY 30 0 {turtle.set\_position (30, 0)}

FO 100 {turtle.draw\_segment ( 100, draw\_segment(0, 100)}

PD {turtle.set\_draw (T)}

SQUARE 200

TRIANGLE 120

RT 60

PU {turtle.set\_draw (F)}

HOME {turtle.home()}

program E:

PD {turtle.set\_draw (T)}

SQUARE 100

SETXY 50 50 {turtle.set\_position (50, 50)}

FO 30 {turtle.draw\_segment (0, 30)}

RT 60

BK 40 {turtle.draw\_segment (180, 20)}

IF\_ELSE {turtle.set\_IF(T) or turtle.set\_ELSE(F)}

RANDOM {turtle.num\_integer(\$9)}

TYPEIN {turtle.read()}

PRINT {turtle.date()}